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PERSONAL.

Mr. R. L. Parker has been appointed City Civil Engineer of Niles, Mich.

Mr. J. B. Ingersoll, Superintendent of Rolling Stock, of the Montreal St. Ry., has resigned.

Mr. Milton Knight, Traffic Manager of the Wabash R. R., has been elected Second Vice-President of that road.

Mr. Jerry O'Shaughnessy has been appointed Superintendent of Water-Works at Columbus, O.

Mr. W. N. Aldrich, Civil Engineer, formerly of North Wilna, N. Y., has removed to Carthage, N. Y.

Mr. Espes Randolph has been appointed General Manager of the Los Angeles Ry. Co., succeeding Mr. C. W. Smith.

Mr. M. deK. Smith, Jr., of Chestertown, Md., has accepted a position with the Civil Engineering Corps of the Pennsylvania R. R.

Mr. George A. Walkem, M. Am. Inst. E. E., has been appointed Manager of the Vancouver Engineering Works, of Vancouver, B. C.

Mr. Cecil B. Smith, recently Assistant City Engineer of Toronto, Ont., has been appointed Resident Engineer of the Canadian Niagara Power Co.

Mr. Joseph Bosley, formerly Assistant Civil Engineer of the Camden Interstate Ry. Co., of Kentucky, has been appointed Chief Engineer of that road.

Captain Frank H. Avery, U. S. A., has been detailed as Professor of Military Science and Tactics at the Agricultural and Mechanical College of Texas.

Mr. Alfred S. Totten, of Lexington, Ky., has been appointed Chief Engineer of Construction of the Pittsburg, McKeesport & Connellsville Interurban Ry.

Rear-Admiral Mortimer L. Johnson has been appointed to succeed Rear-Admiral William T. Sampson as Commandant of the Charlestown, Mass., Navy Yard.

Mr. G. A. Whitehead, formerly Resident Engineer on the Tennessee Central Ry., has been appointed Resident Engineer of the Macon, Dublin & Savannah R. R. Co.

Mr. H. E. Astley has been appointed Roadmaster of the Providence Division of the New York, New Haven & Hartford R. R. Co., vice Mr. R. P. Collins, transferred.

Mr. J. W. Miller, formerly Engineer in the Water Department of Baltimore, Md., has resigned to accept a position in the Construction Department of the United States Navy.

Civil Engineer Frank O. Maxson, U. S. N. has been transferred from the Charlestown Navy Yard to take charge of the improvements at the new naval station at Cavite, P. I.

Mr. Ernest Gozenbach has resigned as Constructing Engineer of the Albany & Hudson Ry., to accept a similar position on a third-rail electric road which is to be built near Chicago.

Prof. Gustave Gilion, of the University of Louvain, Belgium, is studying electric traction and the electric transmission of power in the United States on behalf of the Belgian Government.

Mr. John Gadsden, Jr., has been appointed Engineer of Sewage of Charleston, S. C., to succeed Mr. R. B. Olney, who has resigned to accept a position with the American Pipe Co., of Philadelphia, Pa.

Mr. Wintner L. Wilson has been appointed Assistant Professor of Civil Engineering and Mr. Douglas S. Anderson, M. Am. Inst. E. E., Associate Professor of Electrical Engineering at Tulane University.

Mr. Clark S. Rigby has resigned as City Engineer of Benton Harbor, Mich., to become Chief Engineer of the West Michigan Traction Co., which proposes to build a railroad tunnel under Benton Harbor.

Mr. George Crocker has been appointed Chief Engineer of the Detroit Southern R. R., succeeding Mr. Sieverling, resigned. Mr. Crocker was formerly Assistant Civil Engineer on the Cincinnati, Hamilton & Dayton Ry.

Mr. George F. Hardy has purchased the mill engineering business of the late Mr. Ashley B. Tower, recently known under the name of Tower & Wallace, and formerly A. B. Tower & Co., of Holyoke, Mass., of which latter firm Mr. Hardy was the junior member.

Civil Engineer P. C. Asserson, U. S. N., in charge of the Bureau of Yards and Docks at the New York Navy Yard, has been notified by the Navy Department that because of the value of his services they are compelled to deny his request to be relieved from duty at the end of the present year. Captain Asserson was regularly retired in January, 1901.

Mr. Charles A. Bunting, formerly Engineer at the works of the Pennsylvania Steel Co., at Steelton, Pa., has resigned to accept a position with the International Lithoid Co., of Philadelphia, Pa., who control a new process for manufacturing paving and building materials.

OBITUARY

Mr. W. R. Richardson, Civil Engineer, died at High Point, N. C., on Aug. 6 of typhoid fever.

Mr. William H. Barnes, Civil Engineer, of Williamsville, Mass., died Aug. 7 at the age of 64 years.

Mr. John H. Foley, Civil Engineer, of Boston, Mass., died of consumption at Chicago, Ill., on Aug. 8, while on the way to the home of his parents at Claremont, Ia.

Mrs. H. M. Kimball, owner and sole officer of the Pennsborough & Harrisville R. R., died on Aug. 9 at Parkersburg, W. Va. The road is a narrow-gage line ten miles long.

Mr. James Ross Kerr, Superintendent of the street railway at Kingston, Jamaica, died of heart failure on Aug. 4 in Montreal, Que., where he was visiting. Mr. Kerr was 38 years old, and leaves a wife and child.

Mr. H. Charles Ballard, inventor of the famous Ballard rifle of Civil War times, died at his home in Worcester, Mass., on Aug. 9, at the age of 79 years. At the outbreak of the War he was a foreman in the factory of Ball & Williams, when he invented the rifle.

Mr. Charles A. Cregin, a Civil Engineer in the employ of Col. Michael J. Dady, of Brooklyn, N. Y., committed suicide by shooting himself while stopping at the Hotel St. George, in New York city, on Aug. 9. Mr. Cregin had recently returned from Cuba and was in poor health, but no other motive for his act is known.

ENGINEERING SOCIETIES.

COMING MEETINGS.

OHIO ELECTRIC LIGHT ASSOCIATION.
Aug. 20 to 22. Annual meeting at Put-in-Bay, O. Secy., J. H. Perkins, Youngstown, O.

LEAGUE OF AMERICAN MUNICIPALITIES.
Aug. 21 to 24. Annual meeting at Jamestown, N. Y. Secy., John MacVicar, Des Moines, Ia.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.
Aug. 24 to 31. Annual meeting at Denver, Colo. Secy., L. O. Howard, Cosmos Club, Washington, D. C.

INTERNATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS.
Sept. 2 to 4. Annual meeting at Niagara Falls, N. Y. Secy., Frank P. Foster, Corning, N. Y.

ASSOCIATION OF EDISON ILLUMINATING COMPANIES.
Sept. 10. Annual meeting at Buffalo, N. Y. Secy., Wilson S. Howell, P. O. Box 114, Newark, N. J.

INTERNATIONAL GOOD ROADS CONGRESS.
Sept. 16 to 21. At Buffalo, N. Y. Secy., R. W. Richardson, 928-29 Marquette Bldg., Chicago, Ill.

EASTERN MAINTENANCE-OF-WAY ASSOCIATION.
Sept. 17 and 18. Annual meeting at Rochester, N. Y. Secy., F. C. Stowell, Ware, Mass.

AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS.
Oct. 1 to 4. Annual meeting at Niagara Falls, N. Y. Secy., D. L. Fulton, Allegheny, Pa.

RAILWAY SIGNALING CLUB.
Oct. 8 and 9. Annual meeting at Buffalo, N. Y. Secy., C. O. Tilton, C., M. & St. P. Ry., W. Milwaukee, Wis.

AMERICAN STREET RAILWAY ASSOCIATION.
Oct. 9 and 11. Annual meeting in New York city.

ROADMASTERS' AND MAINTENANCE-OF-WAY ASSOCIATION
Oct. 15. Annual meeting at Washington, D. C. Secy., J. B. Dickson, C. & N. W. Ry., Sterling, Ill.

AMERICAN SOCIETY OF RAILROAD SUPERINTENDENTS.
Oct. 16. Annual meeting at Buffalo, N. Y. Secy., C. A. Hammond, Mount Vernon, N. Y.

INTERNATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS.—At the sixth annual convention, to be held at Niagara Falls, N. Y., Sept. 2 to 4, the following papers will be read: "Need and Value of a Set of Rules for Outside Construction," by P. H. Trout, Jr.; "Underground Electrical Construction from a Municipal Standpoint," by Edw. F. Schurig; "Inadvisability of Placing High and Low Potential Wires Through the Same Series of Conduits or Through the Same Manholes"; "The Protection of Fire and Police Telegraph Wires from High Tension Current and Lightning," by W. M. Petty; "Improved Storage Battery for Municipal Purposes," by J. W. Aydon.

INSTITUTION OF MECHANICAL ENGINEERS OF GREAT BRITAIN.—At the summer meeting, held at Barrow-in-Furness, Eng., on July 30 to Aug. 2, the following papers were presented: "The Arrangement and Equipment of Shipbuilding Works," by James Dunn; "Review of Marine Engineering During the Last Ten Years," by James McKechnie; "Naval Ordnance," by Lieut. A. T. Dawson; "Barrow Docks, and Approaches by Land and Sea," by Frank Stileman; "The Barrow Hematite Steel Works," by Arthur J. While; "Some Work in the Development of a Motor Car," by M. Holroyd Smith; "The Millom Sea Wall," by William Matthews; "Furness Railway Locomotives," by W. F. Pettigrew.

NEW PUBLICATIONS.

WINTER IRRIGATION OF DECIDUOUS ORCHARDS.—By Alfred T. McClatchie. Bull. No. 37, Agricultural Experiment Station, University of Arizona. Tucson, Ariz.: As above. Paper; 6 × 9 ins.; pp. 33; illustrated.

Experiments detailed in this bulletin seem to show that peach and apricot orchards in southern Arizona thrive best under winter irrigation and liberal summer cultivation. Since more water is avilable in winter than in summer the importance of such a conclusion, if borne out by more extended experience as to both time and locality, will be evident to those having to design and operate irrigation works. The summary and conclusions given in the bulletin will be found elsewhere in this issue.

SPECIAL ASSESSMENTS IN BOSTON.—Report Upon the Books and Accounts of the Collector's Department of the City of Boston, with Especial Reference to the Results of the Acts in Regard to Special Assessments for Laying Out and Construction of Highways During the Past Ten Years. By Harvey S. Chase, Public Accountant and Auditor, 8 Congress St., Boston, Mass. Boston: Municipal Printing Office. Paper; 6 × 9 ins.; pp. 52; tables.

This report reviews the special assessment laws of Boston, sets forth the tangled condition of the assessment accounts, and suggests the appointment of a commission to frame a new assessment law. Up to Feb. 1, 1901, a total of $7,697,000 worth of street improvements had been made under the law of 1891, but assessments had been levied for streets corresponding to only $1,365,000 of this cost. Of the latter sum, $898,000 was placed on property benefited, but only half of that had been paid. These figures have all the more significance when it is stated that the original law contemplated a permanent fund for street improvements, the initial sum to be raised by bond sales, while it was to be replenished and capital charges met by assessments for benefits. Later on, this feature of the law was modified so certain classes of improvements were to be assessed, in part, on the city as a whole. In view of the fact that municipal and other engineers are sometimes called upon for aid in drafting special assessment laws, and engineers generally have a hand in apportioning the assessments, this pamphlet seems likely to be of interest to that class of our readers. It is a valuable contribution to the literature of the subject.

GIANT GAP WATER SUPPLY.—Proposed for City and County of San Francisco, Cal., from North Fork of American River, Placer Co., Cal., by Russell L. Dunn and Wm. C. Alberger. San Francisco, Cal.: As above. Cloth; 9 × 12 ins.; pp. 48; illustrated.

This proposition for a new water supply for San Francisco contains some interesting reading. The gentlemen named offer to construct complete water-works with a daily capacity of 45,000,000 gallons and hydro-electric power and transmission works to deliver 13,000 HP. (24-hour) in the city for $17,350,000; or to sell the city water rights and other privileges for $2,000,000. The proposed source of supply is 165 miles, by rail, from San Francisco. Aside from several large storage reservoirs the principal features of the suggested works would be a canal starting at an elevation of 1,960 ft. and conducting water 51¼ miles; a steel conduit 16½ miles long from a reservoir at an elevation of 1,575 ft., to another reservoir at an elevation of 300 ft.; then a second steel pipe line 111½ miles long, with a free discharge into a reservoir in San Francisco at an elevation of only some 25 ft.; and finally a pumping plant to repump the water through the proposed distribution system. If the conduit was laid out so as to deliver the water into the city under a gravity head sufficient for distribution the promoters estimate that the cost of their pipe line would be increased about $7,000,000 over the plan proposed. They calculate that the saving in capital charges would more than offset the cost of pumping, even if no power were developed. The prospectus discusses in some detail the relative costs and advantages of the all-gravity and the combined gravity and pumping schemes, and contains other information of interest. Mr. Dunn is editor of the "Mining & Scientific Press," 330 Market St., San Francisco, Cal.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½x6 ins., 6x9 ins., and 9x12 ins.)

STREET CARS.—J. G. Brill Co., Philadelphia, Pa. Paper; 9 × 6 ins.; pp. 24; illustrated.

This pamphlet treats of the Brill convertible summer and winter car, which was described and illustrated in Eng. News for May 9, 1901.

REFRIGERATING MACHINES.—The Cochran Co., Lorain, O. Paper; 6 × 3½ ins.; pp. 20; illustrated.

This pamphlet describes ice machines of moderate size designed to replace ice boxes as a means of refrigeration. The refrigerating agent used is carbon dioxide.

ELEVATING AND CONVEYING MACHINERY.—The Jeffrey Mfg. Co., Columbus, O. Paper; 9 × 14½ ins.; pp. 4; illustrated.

This circular contains a large number of views of elevating and conveying machinery for factories, mines and power plants.

TURBINE WATER WHEELS.—Camden Water Wheel Works, Camden, Oneida Co., N. Y. Paper; 5½ × 8 ins.; pp. 68; illustrated.

This is a catalogue of turbine water wheels of the inward and downward flow type. Tables of dimensions and capacities are given.

ELEVATING AND CONVEYING MACHINERY.—Buhl Malleable Co., Adair and Wight Sts., Detroit, Mich. Paper; 6 × 9 ins.; pp. 181; illustrated.

This catalogue describes elevating and conveying machinery of various kinds employing sprocket chains as a means of transmission.

OIL, GAS AND ARTESIAN WELL SUPPLIES.—Bovaird & Seyfang Mfg. Co., Bradford, Pa. Cloth; 10 × 12 ins.; pp. 266; illustrated.

This catalogue includes boilers, engines, pumps, drilling and fishing tools, tanks, refining outfits, drilling rigs and a great variety of accessories to the devices named and to the well drilling and pumping business in general. Besides the illustrations of tools and machines there are plans and elevations of complete well drilling rigs. The

book contains some useful information relating to pipe and materials for sinking, casing and pumping wells, tables of weights and measures and American equivalents of foreign coins.

COAL CONVEYORS.—C. W. Hunt Co., 45 Broadway, New York city. Paper; 7 × 9 ins.; pp. 40; illustrated.

This catalogue describes conveying machinery for handling coal ashes and similar materials in power stations. A large number of plants now in operation are described and illustrated.

ARC LAMPS.—General Electric Co., Schenectady, N. Y. Paper; 5 × 8 ins.; pp. 50; illustrated.

The above company manufactures an arc lamp which is interchangeable on direct and alternating current constant-potential circuits. The present catalogue describes and illustrates the lamp and the various uses to which it may be put.

WATER-COOLING TOWER.—Wm. Ostendorff, P. O. Box 81, Weehawken, N. J. Paper; 4 × 6½ ins.; pp. 8; illustrated.

This tower is designed for cooling condensing water and similar purposes. The tower is constructed with three platforms, one above the other, and the water is sprayed through the open air.

DRAWING AND TRACING PAPER.—Elliott Electric Blue Print Co., 723 Liberty Ave., Pittsburg, Pa. Paper; 6 × 3½ ins.

This is a neatly gotten up sample book of drawing and tracing papers and tracing linens manufactured by the above company. A brief description with the price is printed on each sheet.

ROOFING AND PAVING MATERIALS.—Trinidad Asphalt Mfg. Co., St. Louis, Mo. Paper; 5 × 8 ins.; pp. 96; illustrated.

This catalogue is devoted chiefly to asphalt roofing material, particularly roofing shipped in rolls ready for use. The company refines both asphalt and coal tar for roofing, paving, insulating and painting.

WATER STILLS.—Ira Hestren Jewell, Marquette Building, Chicago, Ill. Broadside; 17 × 22 ins.; illustrated.

A variety of devices for distilling water are described on this sheet. The sizes range from ½ to 40 gallons per hour. Either gas or steam may be used for heat. It is stated that a large number of these stills are in use. Some of the users are given.

PISTON-ROD PACKINGS.—The United States Metallic Packing Co., Philadelphia, Pa. Paper; 3½ x 6 ins.; pp. 16; illustrated.

This pamphlet describes metallic packings for marine and stationary engines. The packings are so arranged that they can accommodate themselves to the piston rod when the latter is out of line.

POWER AND TRANSMISSION.—Power & Transmission Publishing Co., Mishawaka, Ind. Paper; 7 × 10 ins.; pp. 66; illustrated.

This is an illustrated quarterly review of "factory economics and power transmission engineering." The text treats of rope transmission and similar subjects, and the advertising pages are largely devoted to the products of the Dodge Mfg. Co., of Mishawaka, Ind.

ELEVATING AND CONVEYING MACHINERY.—The H. W. Caldwell & Son Co., Western Ave., 17th to 18th St., Chicago, Ill. Cloth; 6 × 8 ins.; pp. 441; illustrated.

This book describes elevating, conveying and power transmitting machinery for flour mills, grain elevators and similar plants. It is very complete in illustrations and descriptive matter and contains tables of dimensions and prices.

S. K. C. BULLETINS.—Stanley Electric Mfg. Co., Pittsfield, Mass. Paper; 9 × 10½ ins.; illustrated.

The following bulletins have recently been issued by the above company:

No. 116, describing high voltage ground detectors;

No. 117, spherical coil watt-meters and phase indicators;

No. 118, high-potential switches;

No. 119, lightning arresters.

FORT WAYNE ELECTRIC BULLETINS.—Fort Wayne Electric Works, Fort Wayne, Ind. Paper; 8 × 10 ins.; illustrated.

The following bulletins have recently been issued by the Fort Wayne Electric Works:

No. 1013, describing oil transformers;

No. 1014, open series arc lamps for direct constant current circuits.

No. 1015, ammeters and volt-meters;

No. 1016, constant current closed-coil dynamos for arc lighting.

HAND ROCK DRILL.—Jackson Co., Denver, Colo. Paper; 3½ × 6 ins.; pp. 12; illustrated.

This company manufactures a hand-power rock drill, weighing about 100 lbs. and claimed to do the work of from three to five men with ordinary hand drilling. It is especially adapted to mining work, and with it a miner can strike about 250 125-lb. blows per minute. The price of the drill, with column on cross-bar, arm, clamps, wrenches and oil-can, is $135, f. o. b. Denver, Colo.

ELECTRICAL INSTRUMENTS.—The Stanley Electric Mfg. Co., Pittsfield, Mass. Paper; 8 × 10½ ins.; pp. 8; illustrated.

"Hot wire" ammeters and voltmeters are described in this catalogue. In these instruments a short platinum silver wire is placed, properly protected, in the circuit, and so arranged that its elongation resulting from the heating effect of the current operates the pointer, which is mounted on jewels. The advantages of this type of instrument are as follows: They are dead-beat; they are correct on either direct or alternating circuits; they are not affected by frequency or wave form; they are independent of external magnetism or temperature changes.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened	Work.	Place.	See Eng. News.
Aug. 15.	Cement and stone, Ft. Hancock, N. J.		Aug. 1
	Advertised Eng. News, Aug. 1 and 8.		
Aug. 15.	Railway work, New Brunswick, Can.		Aug. 15
Aug. 16.	Water-works, etc., Greenwood, Miss.		July 25
Aug. 17.	Sewers, Irvington, Ind.		Aug. 8
Aug. 17.	Bridge, Watseka, Ill.		Aug. 8
Aug. 17.	Railway work, Texas.		Aug. 15
Aug. 17.	Sewers, Franklin, Pa.		Aug. 15
Aug. 17.	Sewers, Glassport, Pa.		Aug. 15
Aug. 19.	City buildings, Detroit, Mich.		Aug. 1
Aug. 19.	Side wall, (60,000 ft.), Wiarton, Ont.		Aug. 1
Aug. 19.	Gas plant franchise, Dayton, Ky.		July 18
Aug. 19.	Water bonds, Philadelphia, Pa.		July 18
Aug. 19.	Water-works, Morton, Minn.		Aug. 8
Aug. 19.	Bridge, Rutland, Vt.		Aug. 8
	Advertised, Engineering News, Aug. 8.		
Aug. 19.	Grading, etc., West New York, N. J.		Aug. 8
Aug. 19.	Bridge and coverings (3), Blue Ridge, Ga.		Aug. 8
Aug. 19.	Street improvements, Elyria, O.		Aug. 15
Aug. 19.	Street improvements, Littleton, Mass.		Aug. 15
Aug. 20.	Sewer pipe, etc., Columbus, O.		Aug. 15
Aug. 20.	Bridges (4), Bement, Ill.		Aug. 15
Aug. 20.	Sewers, Salem, Ore		Aug. 15
Aug. 20.	Road construction, Scottsburg, Ind.		Aug. 15
Aug. 20.	Macadamizing, Marinette, Wis.		Aug. 15
Aug. 20.	Paving, New York, N. Y.		Aug. 8
Aug. 20.	Railway grading, Richmond, Va.		Aug. 8
	Advertised, Eng. News, Aug. 8 and 15.		
Aug. 20.	Paving, Reno, Nev.		Aug. 8
Aug. 20.	Church, Dundalk, Ont.		July 18
Aug. 20.	Sea wall, National Soldiers' Home, Va.		Aug. 1
Aug. 20.	Water-works extension, Troy, N. Y.		Aug. 15
Aug. 21.	School buildings, New York, N. Y.		Aug. 15
Aug. 21.	Heating, electric wiring, etc., New York		Aug. 15
Aug. 21.	Building superstructure, Mansfield, O.		Aug. 1
Aug. 21.	Heating apparatus, Elgin, Ill.		Aug. 1
Aug. 21.	Repairing reservoir, New Berlin, N. Y.		Aug. 8
	Advertised, Engineering News, Aug. 8.		
Aug. 21.	Paving, Weehawken, N. J.		Aug. 15
Aug. 21.	Sewers, etc., Melrose, Mass.		Aug. 15
	Advertised, Engineering News, Aug. 15.		
Aug. 21.	Sewers, etc., Cleveland, O.		Aug. 15
Aug. 22.	Grading, etc., Upper Sandusky, O.		Aug. 8
Aug. 22.	Drainage system, Raymond, Ill.		Aug. 8
Aug. 22.	Bridge, Summerville, Ga.		Aug. 1
Aug. 22.	Road (25 miles), Houston, Tex.		Aug. 1
	Advertised, Eng. News, Aug. 1 to 15.		
Aug. 23.	Grading etc., Athens, O.		Aug. 8
Aug. 23.	Paving, Cincinnati, O.		Aug. 8
Aug. 23.	Water-works, Lonaconing, Md.		Aug. 8
	Advertised, Eng. News, Aug. 1 to 15.		
Aug. 23.	Bridge, Hamilton, O.		Aug. 8
Aug. 23.	Heating, etc., Indianapolis, Ind.		Aug. 8
Aug. 23.	Paving, Pittsburg, Pa.		Aug. 15
Aug. 23.	Macadamizing, Paterson, N. J.		Aug. 15
Aug. 23.	Macadamizing, Scott, Pa.		Aug. 15
Aug. 23.	Bridge, Seattle, Wash.		Aug. 15
Aug. 23.	Paving, Cedar Rapids, Ia.		Aug. 15
Aug. 23.	Sewers, Cedar Rapids, Ia.		Aug. 15
Aug. 24.	Sewers, Oshkosh, Wis.		Aug. 15
Aug. 24.	Sewers, etc., Youngstown, O.		Aug. 15
Aug. 24.	Gravel road, Anderson, Ind.		Aug. 8
Aug. 24.	Buildings, Portsmouth, N. H.		Aug. 1
Aug. 25.	Sewer, Oneida, N. Y.		Aug. 15
Aug. 26.	Sidewalks, Vailsburgh, N. J.		Aug. 15
	Advertised, Eng. News, Aug. 15 and 22.		
Aug. 26.	Paving, Atlantic City, N. J.		Aug. 15
	Advertised, Engineering News, Aug. 15.		
Aug. 26.	Concrete sidewalks, Hensall, Ont.		Aug. 15
Aug. 26.	Sewers, Laurel, Del.		Aug. 15
	Advertised, Engineering News, Aug. 15.		
Aug. 26.	Placing stone, Rockland Harbor, Me.		Aug. 1
	Advertised, Eng. News, Aug. 1 to 22.		
Aug. 26.	Stone work, Delaware River, Pa.		Aug. 1
	Advertised, Eng. News, Aug. 1 to 22.		
Aug. 26.	Steel bridge, Alexandria, La.		Aug. 1
	Advertised, Eng. News, Aug. 1 to 15.		
Aug. 26.	Street improvements, Vailsburgh, N. J.		Aug. 8
	Advertised, Eng. News, Aug. 8 and 15.		
Aug. 26.	Bridge substructure, St. Clairsville, O.		Aug. 8
Aug. 26.	Paving, Green Bay, Wis.		Aug. 8
Aug. 26.	School building, Cleveland, O.		Aug. 8
Aug. 27.	Machinery, etc., Philadelphia, Pa.		Aug. 1
Aug. 27.	Aqueduct, Boston, Mass.		Aug. 1
	Advertised, Eng. News, Aug. 1 to 22.		
Aug. 27.	Bridge, Binghamton, N. Y.		Aug. 15
	Advertised, Eng. News, Aug. 15 and 22.		
Aug. 27.	Wharf, New Orleans, La.		Aug. 15
Aug. 27.	Sewers, Hammond, Ind.		Aug. 15
Aug. 28.	Drainage, Louisiana.		Aug. 8
	Advertised, Eng. News, Aug. 8 to 22.		
Aug. 28.	Sewers, Elkhart, Ind.		Aug. 15
Aug. 28.	Sewers, Bowling Green, O.		Aug. 15
Aug. 28.	Paving, Des Moines, Ia.		Aug. 15
Aug. 28.	Water-works, Pleasantville, N. Y.		Aug. 15
	Advertised, Engineering News, Aug. 15.		
Aug. 29.	Bridge, Tullytown, Pa.		Aug. 15
Aug. 29.	Custom house, Brunswick, Ga.		Aug. 1
Aug. 30.	County building, Augusta, Ga.		Aug. 8
Aug. 30.	Sluice gates, iron work, etc., Minneapolis		Aug. 8
Aug. 30.	School building, New Haven, Conn.		Aug. 8
Aug. 30.	Store house, Philadelphia, Pa.		Aug. 8
Aug. 30.	Sewers, Keokuk, Ia.		Aug. 15
Aug. 30.	Road construction, North Judson, Ind.		Aug. 15
Aug. 30.	Garbage crematory, Salt Lake City, Utah		Aug. 15
Aug. 31.	Paving, etc., Cleveland, O.		Aug. 15
Aug. 31.	Paving, Huntington, L. I.		Aug. 15
	Advertised, Eng. News, Aug. 15 and 22.		
Aug. 31.	Tile drains, etc., Cerro Gordo, Ill.		Aug. 15
Aug. 31.	Electric lighting, Indianapolis, Ind.		Aug. 15
Aug. 31.	Dredging, Detroit, Mich.		Aug. 15
	Advertised, Eng. News, Aug. 15 to 29.		
Aug. 31.	Paving, Youngstown, O.		Aug. 15
Aug. 31.	Bridge, Washington, D. C.		Aug. 15
	Advertised, Engineering News, Aug. 15.		
Aug. 31.	Paving bonds, Youngstown, O.		Aug. 8
Aug. 31.	Building, Philadelphia, Pa., navy yard		Aug. 8
Aug. 31.	Sewers, Washington, D. C.		Aug. 8
	Advertised, Engineering News, Aug. 8.		
Aug. 31.	Road improvement, Cincinnati, O.		Aug. 8
Aug. 31.	Sewerage system, St. Petersburg, Russia		Dec. 6
Aug. 31.	Buildings, Algiers, La.		Aug. 1
Sept. 1.	Bridge, Glenwood, Man.		Aug. 15
Sept. 2.	Sewers, Glenville, O.		Aug. 15
Sept. 2.	Bridges, Mankato, Minn.		Aug. 1
Sept. 2.	College buildings, Stillwater, Okla.		Aug. 1
Sept. 2.	Electric cars, etc., Amsterdam, Holland		July 18
Sept. 2.	Addition to library bldg., Stillwater, Okla.		Aug. 15
Sept. 3.	Grain elevator, Montreal, Que.		Aug. 15
	Advertised, Eng. Aug. 8 and 15.		
Sept. 3.	Mechanical equipment, San Francisco, Cal.		July 18
Sept. 3.	Bridge, White Sulphur Springs, Mont.		July 25
Sept. 3.	St. ry franchises, Los Angeles, Cal.		Aug. 8
Sept. 3.	Canal work, Chicago, Ill.		Aug. 8
	Advertised, Eng. News, Aug. 8 to 29.		
Sept. 3.	Paving, Kenosha, Wis.		Aug. 15
Sept. 4.	St. ry power house, Pittsburg, Pa.		Aug. 8
	Advertised, Engineering News, Aug. 8.		
Sept. 4.	Pumping plant, filter, etc., Geneva, O.		Aug. 15
Sept. 5.	County jail, Riverside, Cal.		Aug. 15
Sept. 5.	Court house bonds, Asheville, N. C.		Aug. 15
Sept. 6.	Sea wall, Fortress Monroe, Va.		Aug. 8
Sept. 6.	Valves, etc., Cleveland, O.		Aug. 15
Sept. 7.	School building, Redding, Cal.		Aug. 15
Sept. 7.	Building, New York navy yard		Aug. 15
Sept. 8.	Bridge, Weiser, Idaho		Aug. 8
Sept. 9.	Light-houses, Mobile, Ala.		Aug. 15
	Advertised, Eng. News, Aug. 15 and 22.		
Sept. 9.	Electrical equipments, Washington, D. C.		Aug. 15
	Advertised, Eng. News, Aug. 15 to Sept. 15.		
Sept. 10.	Plans, etc. (w.-wks.), Muskogee, Ind. T.		Aug. 8
Sept. 17.	Court house, Cartersville, Ga.		Aug. 1
Sept. 20.	Arc lighting, El Paso, Tex.		Aug. 15
Sept. 21.	Generating plant (w.-wks.), Washington		Aug. 15
	Advertised, Engineering News, Aug. 8.		
Sept. 25.	Sewerage system, Havana, Cuba		Aug. 27
	Advertised Eng. News, June 27 to Sept. 10.		
Sept. 25.	Paving, Havana, Cuba.		Aug. 27
	Advertised Eng. News, June 27 to Sept. 10.		
Oct. 1.	Water supply, etc., Burlington, Ia.		Aug. 27
	Advertised, Eng. News, June 27 and July 11.		
Oct. 1.	Bridge, Copenhagen, Denmark		Aug. 8
Oct. 1.	Rip-rap, Galveston, Tex.		Aug. 8
	Advertised, Eng. News, Aug. 8 to Sept. 20.		
Oct. 5.	Water gates, etc., Washington, D. C.		Aug. 8
	Advertised, Engineering News, Aug. 8.		
Dec. 3.	Coaling plant, Manila, P. I.		Aug. 20
Dec. 4.	Self-propelling wagons, etc., London, Eng.		Aug. 20
Jan. 10.	Harbor work, Rosario, Argentine Republic		Apr. 18
Feb. 28.	Bridge, Sydney, N. S. W.		June 20
	Advertised, Eng. News, June 20 to July 11.		
No date.	Bridge, Stanton, Va.		Aug. 15
"	Bridge, Sackville, N. S.		Aug. 15
"	Sewage disposal plant, Los Angeles, Cal.		Aug. 15

RAILWAYS.

ARLINGTON & COLUMBUS.—This company has been incorporated with a capital of $500,000 by J. F. Hudson, T. D. Kline, H. A. Dunn and H. C. Cunningham, of Arlington, Ga., to build a line from that place to Columbus.

BROOKS TIMBER CO.—This company is reported to have begun the construction of a logging road from Brooklon, on the G. N. and N. P. lines, to the timber lands of this company, a distance of 50 miles.

BURLINGTON & MISSOURI.—G. W. Holdredge, Gen. Mgr., Omaha, Neb., is reported to have stated that surveys will be started in a few months for a line from Pueblo, Colo. The original plan was to build a line from St. Francis, Kan., to Pueblo, but it is probable that the line will be constructed from Brush, Colo., a distance of about 170 miles direct. The route of the proposed line will probably be from Brush up Badger Creek, thence south to Bijou to the Arkansas line, thence to the head-waters of the Black Squirrel Creek, and from that point direct to Pueblo. This route would require about 200 miles of roadbed and much of the way would be down grade to Pueblo.

CALHOUN COUNTY.—This company has been incorporated by W. A. Boland, of New York; W. A. Foote and Worrall Jackson, of the Detroit & Chicago Terminal Traction Co., with a capital of $100,000 to build the first section of the D. & C. T Co.'s line westward from Jackson.

CAPE BRETON.—Bids were asked until Aug. 13 for the grading, timber and masonry work of the first section of this road in N. S., Can. R. W. Leonard, Ch. Engr. and Mgr. Construction, Hawkesbury, Ont.

CHICAGO, BURLINGTON & QUINCY.—This company has purchased land at Galesburg, Ill., where it is proposed to make extensive improvements at once, to include buildings, changing several tracks, large switch yard, etc. F. C. Rice, Supt.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—This company proposes to build a yard containing 14 tracks, and to be two miles long, at Waldron, Ill.

CUMBERLAND & OHIO VALLEY.—This company has been incorporated with a capital of $500,000 by Peter Arlund and Thos. H. Leonard, of Louisville, Ky., and Geo. Borgerding, of New Albany, Ind., to build a line from Madison, Ind., to Nashville, Tenn., to cost $8,000,000. About 100 miles of the line have already been constructed.

DELAWARE & HUDSON.—Plans and specifications for the elevation of the N. Y. Central and the D. & H. R. R. tracks in Schenectady, N. Y., have been received by Mayor White of that city from Chief Engineer Wilgus of the N. Y. Central. The total cost of the elevation of the two lines through the city will be $720,000, one-fourth of which is to be paid by the city in case the plans are carried out. The plans show that the Central-Hudson company intends to remove the roundhouse, turntable and coaling trestle from the present location to points south of State St., which street will be depressed 3 ft. 7 ins. The grade of the other streets will also be altered.

DENVER & ELDORA.—Reports state that J. R. De Remes, of Pueblo, Colo., has been awarded the contract for grading 25 miles of this line between Superior and Eldora, Colo. The terminus for the present will be Eldora, but it is planned next spring to extend the line to Steamboat Springs, in Routt county, Colo. M. T. Leech, of Boulder, Colo., and J. Whitney Beals, of Boston, Mass., are interested.

DULUTH, VIRGINIA & RAINEY LAKE.—This company has been incorporated with a capital of $2,000,000 by Wirt H. Cook, W. D. Bailey, of Duluth, Minn., and Henry Turnish, of Superior, Wis., to build a line from Virginia to Koochiching, via Vermillion, Ash and Gabitagurug Lakes.

DURANGO-CLIFTON.—Thos. H. Wigglesworth, Durango, Colo., is making surveys for this proposed line between Durango and Clifton, about 400 miles. C. E. McConnell, or Durango, is interested.

EASTERN OF ALABAMA.—T. G. Baylor, Ch. Engr., Talladega, Ala., writes us that this road has been located from Pyrites, Clay county, Ala., and construction of 25 miles of the line will begin early in September, and bids will be wanted at once. The road will later be extended eight miles to Lineville in Clay county. J. F. Webb, Secy., Talladega, Ala.

GLENFIELD & WESTERN.—This company has been incorporated with a capital of $150,000 by Alanson S. Page, of Oswego, N. Y.; Chas. E. Campbell, of New York, and F. P. Wilder, of Carthage, N. Y., to build a standard-gage steam road in Lewis county, N. Y., to be 15 miles long. Construction has already been commenced. Edward Bennett, Pulaski, N. Y., will have charge of the work.

KNOXVILLE & BRISTOL.—Reports state that surveys are being made for extending this line from Bristol to Beans Station, Tenn. Henry M. Braker, Pres., New York; H. M. Aiken, Supt.; C. W. Crozer, Ch. Engr., Knoxville.

MONROE & GREENVILLE.—This company has been incorporated with a capital of $100,000 by J. W. Block, J. T. McKeon and Geo. A. Glover, of Montgomery, Ala., to build a road in Monroe county, Ala.

MICHIGAN CENTRAL.—The contract for the construction of the Heywood branch of this line has been let to W. E. Tench & Co., of Caro, Mich. This line runs east from Heywood on the Sturgeon River and opens up a large territory of timber lands. About 500 men and a large

force of teams will be put to work at once. Headquarters have been established at Wolverine, Cheboygan county, Michigan.

MOUNT ROGERS & EASTERN.—This company has been granted a subsidy of $150,000 by Floyd county, Va., to aid in the expense of building a line through Floyd, Carroll and Grayson counties.

NASHVILLE & CLARKSVILLE.—The citizens of Nashville, Tenn., have voted to buy $1,000,000 worth of the stock of this road, which it is proposed to connect with the Cincinnati Southern at Emory Gap, Tenn. The capital is $7,000,000. Jere. Baxter, Pres., Nashville.

NEW YORK CENTRAL & HUDSON RIVER.—The "Journal of Commerce" states as follows regarding the plans of this company for improving its terminals at Weehawken, N. J.: So far as the general plan of construction and equipment of the elevator is concerned it may be added that the foundations will consist of piles, 90 to 115 ft. long, driven to hard sand and cut off 3 ins. below low water. The piers and foundation walls will be of concrete, with caps 4 ft. 6 ins. by 4 ft. 6 ins., resting on cluster of 18 piles each, top of cap 2 ft. above high water. Foundation walls of concrete on piles carried 2 ft. above high water and 2 ft. 7 ins. thick at top. Steel frame supporting bins—208 columns—with girders formed by bin walls re-enforced by angles, all of steel; 291 bins built of steel plate, varying in thickness from five-sixteenths of an inch to three-sixteenths of an inch, provided with angles and flat-bar stiffeners, and ranging in capacity from 4,500 bushels to 11,700 bushels, as follows: 59 bins "A" (regular) 11,700 bu., 138 bins "B" (one-half) 5,850 bu., 48 bins "C" (each side of legs) 4,500 bu., 23 bins "D" (under shipping bins) 4,900 bu., 23 bins "E" (shipping bins) 5,200 bu., garners, scales, hoppers, etc., 54,100 bu. The exterior walls and ends of brick, 25 ins. thick for height of 32 ft. above foundations, and 13 ins. thick above this; sides of cupola of tile. A tower will be supported from the framework of first story to main building, with columns, girders, beams, etc., of steel. Floor concrete, covering galvanized corrugated iron. The following machinery will be carried upon the steel framework of the building or upon the floors properly re-enforced: One iron marine leg, eight iron receiving legs, eight iron shipping legs, seven iron cleaner legs, one iron screenings leg, one conveyor in cupola (rubber and duck), eight conveyors in first story (rubber and duck), 32 power shovel machines, 14 steel cleaning machines, eight receiving scales, 1,600 bu. capacity each, steel hoppers; eight shipping scales, 800 bu.; seven cleaning scales, 800 bu.; one passenger elevator (electric), one power car puller, 23 A. C. motors, 100 HP. each; two A. C. motors, 60 HP. each; 17 A. C. motors, 40 HP. each; one A. C. motor, 10 HP.; one switchboard and complete system of wiring in connection with above; complete installation (exclusive of generator) for 328 incandescent lamps of 16 c. p. each, and 78 incandescent lamps of 32 c. p. each; one dust-collecting system, consisting of four steel-plate exhaust fans, 18 dust collectors, 72 floor sweeps, and complete system of piping in connection with same; one system of fire-service, piping with 48 outlets, each provided with section of hose 50 ft. long, with nozzle and rack. It is considered on the N. Y. Produce Exchange that the other N. Y. trunk lines will find that they can ill afford to allow these improvements by the Central without making corresponding efforts to modernize their own equipment, and that, therefore, New York harbor is bound to receive general and important improvements within the next few years. W. B. Pollock, Mgr. Marine Dept., Weehawken; W. J. Wilgus, Ch. Engr., New York.

N. B. COAL & RY. CO.—Bids are asked until noon Aug. 15 for constructing the first section of 15 miles of the railway from Chipman through the Newcastle coal fields, N. B., Can. The work is to include grading, bridges, track laying, stations, tanks, telephone line, etc. E. G. Evans, Ch. Engr., Hampton, N. B.; G. W. Allen, Secy., St. John, N. B.

ONTARIO.—It is stated that Major Mackendrick, of Kincardine, Ont., is promoting a scheme to build a road from Allenford on the Grand Trunk to Southampton, and another from Turner on the G. T. to Goderich.——F. H. Clergue has promised that the Manitoulin & North Shore Ry., of which he is the head, will construct these lines and secure such right over the Grand Trunk as will secure their co-operation in a favorable way.

PACIFIC & IDAHO NORTHERN.—It is stated that L. A. Hall and Wilkerson & Thompson, of Weiser, Idaho, have been awarded the contracts for extending this line from Council to Landore, in Seven Devils District, about 45 miles; estimated cost, $1,000,000.

PARRY SOUND, ONT.—S. A. Poulin, of Ottawa, Ont., is reported to have been awarded a contract by Mackenzie & Mann, of Toronto, Ont., for building three miles of the proposed railway from Rose Point to Parry Sound.

PENNSYLVANIA R. R.—A permit has been granted to this company in Baltimore, Md., to rebuild the Union Tunnel at Hoffman St.

ST. LOUIS SOUTHWESTERN.—F. H. Britton, Vice-Pres. and Gen. Mgr., St. Louis, Mo., writes that a surveying party is now making a preliminary survey for the proposed extension from Malden to Memphis, Tenn.

SANTA ANA & LONG BEACH.—This company has been incorporated with a capital of $250,000 by Maj. S. H. Finley, of Santa Ana, Cal.; P. A. Stinton and Frank Finlay, of Los Angeles, Cal., to build a road 20 miles long in Orange county, Cal.

SAULT-DETOUR.—This company plans to build a line from Sault Ste. Marie to Detour, Mich., a distance of about 50 miles. D. W. Hitchcock, Pres., Chicago; F. H. Taylor, Vice-Pres., Pickford, Mich.

WEATHERFORD, MINERAL WELLS & NORTHWESTERN.—Bids are asked until Aug. 17 for grading, masonry and bridging about 45 miles of this line in Palo Pinto and Young counties, Tex. L. M. Fauts, Pres., Weatherford, Texas.

WEST POINT, URBANA & YORKTOWN.—L. G. Tyler, Williamsburg, Va., writes that the rights of way have been secured. This line will be about 98 miles long. T. B. Henley, Pres., Newport News, Va.

YAZOO & MISSISSIPPI VALLEY.—O. M. Dunn, Supt., and J. C. Gray, Ch. Engr., have arrived in Yazoo City, Miss., for the purpose of laying the maps and profiles of right of way for the Belzoni extension to Yazoo City before the citizens railroad committee of that place. The work of securing the rights of way will be undertaken at once. W. W. Hayden, Asst. Engr., Memphis, Tenn.

STREET AND ELECTRIC RAILWAYS.

AUGUSTA, ME.—The Augusta, Hallowell & Gardiner St. Ry. Co. proposes to build an electric road as soon as a charter can be secured.

PITTSFIELD, MASS.—Chas. K. Stearns, Electric Engr., Boston, is reported as preparing plans for a power house for the Berkshire St. Ry. Co.

UPTON, MASS.—The Milford & Upton Electric Ry. Co. has been granted a franchise, the road to be completed by Jan. 1.

WILLIMANTIC, CONN.—Geo. E. Hinman, of the Willimantic & Southbridge St. Ry., writes us that no construction is probable at present.

BROADBROOK, CONN.—E. W. Burd, Chn. Executive Com., writes us that the Rockville, Broad Brook & East Windsor R. R. Co., is yet unorganized and no information regarding the proposed electric road, to be 14 miles long, can be given.

ROCKVILLE, CONN.—The Stafford & Rockville Electric St. Ry. has been organized with a capital of $50,000. Arthur Perkins and T. C. Perkins, Engr., of Hartford, are interested.

WINDSOR LOCKS, CONN.—The Windsor Locks & Rainbow St. Ry. Co. is reported as arranging for the construction of the proposed electric road to cost $100,000. H. A. Huntington, Pres.; F. E. Healy, Secy. and Treas.

ALBION, N. Y.—Work on the proposed road for the Genesee & Orleans Electric Ry. will be commenced in a few days, according to reports.

FISHKILL, N. Y.—Reports state that work on the proposed electric road between Hughsonville and Fishkill Corners, to cost $50,000, will commence about Oct. 1. Major Weston, of Newburg, N. Y., and Dr. Conklin are interested.

HERKIMER, N. Y.—The Mohawk Interurban Traction Co. has been incorporated with a capital of $160,000 by Jas. D. Smith, of New York; Frank J. Ehle, of Fort Plain, N. Y., and C. E. Taylor, of St. Johnsville, N. Y.

ROCHESTER, N. Y.—Reports state that satisfactory arrangements for financing the proposed Rochester & Hornellsville St. Ry. and for constructing the road have been completed. The line will be about 80 miles long.

SYRACUSE, N. Y.—Chas. E. Lux, a banker of Lyons, N. Y., is reported as securing franchises along the route of the proposed electric line between Rochester and Syracuse. The Genesee & Orleans Ry. Co., the Monroe County Belt Line Co., the Rochester & Eastern Ry. Co., the Rochester & Sullivan Traction Co. and other companies are securing franchises for electric railways in this vicinity.

CARLISLE, PA.—The Mechanicsburg & Bowmansdale Co. and the Harrisburg & Lewisberry Ry. Co. have been incorporated to build electric roads, 20 and seven miles long, respectively. Jacob Foreman, Pres., Carlisle; E. Lawton, Treas., Carlisle; C. C. Bashore, Secy.

EASTON, PA.—The Easton & Belvidere St. Ry. Co. and the Lehigh & Northampton St. Ry. Co. have been incorporated to build electric roads. C. A. Laros, Pres.

POTTSTOWN, PA.—The Ringing Rocks Traction Co. has been incorporated to build an electric road to be about nine miles long. Capital stock, $54,000. Cyrus Q. Guldin, Pres., Reading, Pa.; A. E. Shauer, of Pottstown, is interested.

PARKERSBURG, W. VA.—Reports state that John O'Kelly, of Ashland, Ky., may secure the contract for extending to Marietta the electric road of the Parkersburg Interurban Ry., which has recently consolidated the properties of the Parkersburg & Marietta Electric Ry., the Parkersburg Gas, Electric Light & St. Ry.

WILMINGTON, N. C.—The Wilmington Sea Coast R. R. Co. proposes to extend the electric road into this city.

MEMPHIS, TENN.—The Memphis St. Ry. Co. proposes to extend its lines on the Hernando Road. F. G. Jones, Gen. Mgr.

GEORGETOWN, KY.—The Georgetown & Lexington Traction Co. has been incorporated with a capital of $5,000 by B. D. Berry, Wm. Addams and H. P. Montgomery.

AKRON, O.—M. Spitzer, of Chicago, it is stated, is preparing plans for a power house for the Canton & Akron Electric Ry. Co., to cost $50,000.

CLEVELAND, O.—It is stated that Philadelphia capitalists are interested in a plan for the consolidation of electric street railways and interurban trolley lines which, if completed, will make the greatest system of electric roads in the country. It is proposed to form a syndicate for the purchase of 1,160 miles of road already constructed, covering Cleveland, Toledo, Sandusky and Detroit, and reaching many of the smaller towns of Ohio and Michigan. The capitalists interested in the movement are Henry A. Everett and E. W. Moore, of Cleveland, who now operate 1,500 miles of track across the entire length of Michigan and in Ohio and western Pennsylvania, P. A. B. Widener, Wm. L. Elkins and some other Philadelphia and New York capitalists. The capital of the new company is reported to be $125,000,000. The following gives a list of the lines the syndicate proposes acquiring, the mileage and capital of each: Cleveland Electric, 136 miles, $17,350,000; Cleveland City, 36 miles, $10,000,000; Cleveland & Lorain, 24 miles, $1,750,000; Northern Ohio Traction, 95 miles, $6,500,000; Cleveland & Chagrin Falls, 41 miles, $800,000; Cleveland & Eastern, 40 miles, $2,200,000; Cleveland, P. & Eastern, 38 miles, $2,500,000; Sandusky & Interurban, 53 miles, $920,000; Sandusky, Northern & Southern, 21 miles, $540,000; Toledo Traction, 104 miles, $24,000,000; Toledo, Fremont & Norwalk, 62 miles, $3,000,000; Detroit United Ry., 204 miles, $23,500,000; Detroit & Northwestern, 60 miles, $1,400,000; Detroit & Pontiac, 40 miles, $1,000,000; Detroit & Wyandotte, 11 miles, $25,330,000; Port Huron Rapid Ry., 116 miles, $4,000,000; Detroit & Toledo, 60 miles, $4,000,000.

COLUMBUS, O.—The Lake Shore Electric Ry. Co. has been incorporated with a capital of $10,000 by B. Mahler, F. W. Coen and A. M. Snyder. The incorporation is said to be the first legal step in the plan to merge all the Everett-Moore electric lines into one company. The Lake Shore company is a consolidation of the Toledo, Fremont & Northern, Lorain & Cleveland, Sandusky & Interurban and Sandusky, Norwalk & Southern roads, all Everett-Moore properties. A stretch of track four miles long is now under construction at Huron, and when this is completed the company will have a through line from Cleveland to Toledo. This will be finished about Oct. 1. The syndicate will also have the Toledo-Detroit line completed about the same time, so that cars can be run from Cleveland to Detroit. The actual capital stock of the Lake Shore Electric Ry. Co., it is understood, will eventually be $4,500,000.

FINDLAY, O.—Local papers state that the Toledo, Bowling Green & Southern Traction Co. will build a power plant on Putnam St., which, together with a heating plant, will cost about $250,000. Chas. F. Smith is interested.

SPRINGFIELD, O.—The Pennsylvania R. R. Co., according to reports, proposes to equip the Springfield branch of the Pan-Handle Ry. with electricity. G. L. Peck, Gen. Mgr. Pennsylvania S. W., Pittsburg, Pa.; T. W. Demarest, Supt. Motive Power, Columbus, O.

SPRINGFIELD, O.—Geo. H. Fry, Jr., has been granted a franchise for an electric railway from Springfield to Hillsboro, a distance of about 60 miles.

TIFFIN, O.—The county commissioners are considering applications for franchises from the following: Tiffin & Port Clinton Ry., or Kerlin Bros.; Tiffin, Fremont & Sandusky Ry., or Bunn's Co.; Sandusky, Clyde & Tiffin Co., or J. C. Parker's; Tiffin & Southern, in which several Toledo men are interested; the Tiffin & Southwestern, which is prompted by Kenton parties; a line from Upper Sandusky via Sycamore and Melmore, of which project Dr. A. C. Stutz, of Upper Sandusky, is named as trustee. Two rival lines from Bucyrus, headed by Gen. E. B. Finley, of Bucyrus, and Dr. Woerz, of Toledo, made applications about a month ago. A line was projected last spring from Norwalk to Tiffin via Bellevue, Frank's and Republic, but no application was ever made for a franchise.

TOLEDO, O.—The Tiffin & Southern Ry. Co. has been incorporated with a capital of $10,000 by Allen Smalley, Chas. Stayer and D. C. Donovan.

YOUNGSTOWN, O.—The Stark Electric Ry. Co. has asked for a franchise for electric roads in Mahoning county. C. R. Morley, Pres.

NEW ALBANY, IND.—Sanford Horton, Ch. Engr., has completed surveys for an electric road between New Albany, Paoli, West Baden and French Lick. Construction, it is said, will commence Sept. 15.

DIXON, ILL.—G. H. T. Shaw, Pres., of Dixon, writes us that the Northern Illinois Electric Ry. Co. has secured all its right of way for its line from Steward to Dixon, about 35 miles. It is not known when contracts will be let, but probably not before winter. R. C. Canterbury, Ch. Engr., Association Bldg., Chicago.

EAST ST. LOUIS, ILL.—The St. Louis & Belleville Suburban Ry. Co., which has a line to Collinsville and Edwardsville, and is building another electric road between O'Fallon and Lebanon, has purchased the property of the Mississippi Transit Co., by which it intends to have a complete line from East St. Louis to Chester, Ill.

MOLINE, ILL.—F. W. Rank, Secy. Moline, East Moline & Watertown Ry. Co., writes us that rights of way for the company's proposed electric line from Moline to Port Byron, 20 miles, are practically secured. C. H. Deere, Pres., Moline.

SHEBOYGAN, WIS.—The Sheboygan & Elkhart Lake Ry. & Electric Co. has been organized to build a road about 22 miles long, with a six-mile branch to Waldo. Capital stock, $200,000. John M. Salmann, Pres.; Peter P. Brueckbauer, Secy., Elkhart Lake.

SIOUX CITY, IA.—Reports state that arrangements for financing the proposed electric road between Sioux City and Le Maro have been completed; estimated cost, $150,000.

ST. JOSEPH, MO.—Arrangements are being made for a terminal depot and power house for the Kansas City & St. Joseph Electric Ry., which, together with a bridge and an extension of the road, will cost about $2,500,000. P. A. Gibson, Pres.; S. R. Anthony, Vice-Pres. Tucker, Anthony & Co., Bankers, Boston, Mass., are interested.

SPRINGFIELD, MO.—The Springfield & St. Louis Ry. Co. has been incorporated to build an electric road. H. H. Little, Pres., Buffalo, N. Y.; H. S. Rearden, Gen. Mgr.

SALEM, ORE.—W. H. Burghardt, Pres., 461 Winter St., writes us that surveys for 35 miles of the 65 miles of the proposed Oregon City Southern Ry. have been completed, and right of way is nearly all secured. The capital for construction is now being negotiated for.

FRESNO, CAL.—The Fresno St. R. R. Co. has been incorporated with a capital of $150,000 by S. N. Griffith, who, it is stated, will at once begin the construction of the electric line.

REDLANDS, CAL.—H. H. Sinclair, of the San Bernardino Valley Traction Co., writes us that surveys are complete for this line, to be 18 miles long. The contracts for material and overhead construction have been let. Cars and electric machinery will be ordered in August. Henry Fisher, Pres.; A. C. Denman, Jr., Gen. Mgr.

SANTA CRUZ, CAL.—Fred. W. Swanton has petitioned for a franchise for an electric railway from Santa Cruz to Watsonville, with branches to Capitola and Corralitos. Eastern capitalists are behind the project. It is estimated that 500 HP. will be required. From Soquel a branch is to be built to Capitola.

MONTREAL, QUE.—Contracts for supplies for the extension of the Montreal St. Ry. are reported as being let. J. S. Vinden, Engr. of Construction.

FORT ERIE, ONT.—Plans for the Fort Erie Ferry Electric Ry. have been completed. It will run from Chippewa, on the Niagara River, to Fort Erie, about 20 miles.

OTTAWA, ONT.—The Hull Electric Ry. Co., whose line now operates between Ottawa and Aylmer, has practically passed into the hands of the Ottawa, Northern & Western Ry. The consideration is over $1,000,000 in cash and bonds. In acquiring the road, the O. N. & W. Ry. is relieved of the necessity of building a line from Aylmer in connection with the Pontiac division.

TORONTO, ONT.—It is stated that the contract for extending the Schomberg-Aurora Electric Ry., from Richmond Hill to Schomberg, north of Toronto, has been let to Mackenzie & Mann. This is another of the links in the system of radial railways, 500 miles of which are to be built out from Toronto in five lines of 100 miles each at an estimated cost of $2,850,000 for the first 354 miles of track and roadway only.

TRENTON, ONT.—The Trenton & Cornwall Electric Ry. has secured its capital, and, it is stated, will soon proceed with the construction. B. W. Folger, Kingston, Ont., is interested.

ELECTRIC LIGHT AND POWER.

BRISTOL, CONN.—C. W. Eaton is reported as interested in a scheme to build a new electric plant.

BELFORT, N. Y.—Eaton & Brownell, Engrs., Carthage, N. Y., write us that the contract for the electrical part of the plant for the Carthage Electric Light & Power Co., now under construction, has not yet been let. The power will be transmitted about 17 miles with a three-phase line. The plant will be 1,500-HP. capacity, using S. Morgan Smith Co.'s wheels.

DOLGEVILLE, N. Y.—The property of the Dolgeville Electric Light & Power Co. will be sold at auction on Sept. 17.

DUNKIRK, N. Y.—A. W. Cummings, Owner and Engr., writes us that the proposed power plant, to cost about $15,000, will consist of an addition to the power and heating plant by installing engines to increase the present plant from 150 to 180 HP. and generators of 250 volts, etc.; estimated cost, about $15,000.

MASSENA, N. Y.—S. B. Brower, of East Orange, N. Y., is reported as preparing plans for a new power station for the St. Lawrence Power Co., of Massena.

PLATTSBURG, N. Y.—Philip Mullin, Engr., and W. F. Davidson, Supt. Chateaugay Ore & Iron Co., Lyon Mountain, N. Y., are reported as making investigations for a power plant on the Chateaugay River.

ROCHESTER, N. Y.—A. Freiderich's Sons Co., of this city, has been awarded the contract for constructing the new power house for the Citizens' Light & Power Co.; estimated cost, about $1,000,000. The contracts for the equipment have been let as follows: Eight B. & W. type of boilers of 650 HP. each and sufficient boiler capacity to develop over 10,000 HP, Aultman & Taylor; five 1,800-HP. vertical cross-compound engines, Southwark Foundry & Machine Co.; one horizontal cross-compound engine of 750 HP., Dixon Mfg. Co., Scranton, Pa.

CHATHAM, N. J.—W. M. Sheehan & Co., Consult. Engr., 136 Liberty St., New York, write us that the following bids were received July 24 for an electric plant; the con-

tract for the station equipment and outdoor equipment has been let to Hewitt & Warden, and that for constructing the building to Halsey Stergiss:

	Building.	Station equipment, complete.	Pole line.
Elec. Motor & Equipment Co., Newark, N. J.	$2,679	$6,456	$6,493
Strong & Totten, New York	2,645	5,575	6,257
Edw. Heaton, New York	2,481	5,742	6,755
Hewitt & Warden, Newburgh, N.Y.	2,800	5,870	5,154
Halsey Stergiss, Madison, N. J.	2,100	....	....

MERCHANTSVILLE, N. J.—The South Jersey Gas, Electric & Traction Co. has been awarded a five-year contract for 120 32-c. p. incandescent lights.

MIDDLETOWN, N. J.—The Shore Electric Co. is reported to have purchased a lot to which it proposes to move its electric plant, to cost about $20,000. Philip N. Jackson, Pres., Newark, N. J.

BALTIMORE, MD.—S. D. Warfield, Pres., Continental Trust Co., and Alex. Brown, of Baltimore, and Frank Tilford, 1412 Broadway, New York, are reported as interested in a new company being formed to combine the gas and electric companies of this city, and to build a power plant on the Susquehanna River.

WASHINGTON, D. C.—Bids are asked until Sept. 9 for furnishing distributing centers for electric lighting and power circuits for the new building for the Government Printing Office, as stated in our advertising columns. Capt. John S. Sewell, U. S. Engr.

HARRISONBURG, VA.—An election will soon be held to vote on the question of building a municipal electric plant. Thorburn Reed, 136 Liberty St., New York.

YADKIN, N. C.—Geo. I. Whitney, of Pittsburg, Pa., writes us that J. J. Kennedy, 52 Broadway, New York, is the engineer for the proposed electric plant.

GRIFFIN, GA.—Col. Seaton Grantland, owner of High Falls, is reported as making arrangements for developing the same; the power to be transmitted to Griffin, Forsyth, Jackson, Barnesville, etc.——The Griffin Electric Light & Power Co. proposes to add to its plant. E. H. Davis, Supt.

WINDER, GA.—The Russell Mfg. Co. is reported to be arranging to build an electric plant to light the town.

MOBILE, ALA.—The power and street railway properties of the Mobile Light & R. R. Co., the Electric Lighting Co. of Mobile, and the Mobile Gas Light & Coke Co., will be combined on Sept. 1. The various plants will be enlarged. J. H. Wilson, Pres., and Gen. Mgr.

LAWRENCEBURG, TENN.—Reports state that there is a movement on foot to form a company to build an electric plant about two miles from here.

COLUMBUS, O.—It is stated that this city has voted against issuing $200,000 in bonds for an electric plant.

INDIANAPOLIS, IND.—Bids are asked by the board of public works until Aug. 31 for furnishing 1,500 or more electric lights for a term of years. Should the successful bidder have no plant at the time of the award such bidder is to begin within 90 days the construction and equipment of a plant of adequate capacity. The conduit systems are to be placed not less than 2 ft. under ground. By the amended specifications the board reserves the right to reject or accept the percentage of gross receipts offered by the successful bidder arising under the contract both as to public and commercial lighting. A bond in the sum of $25,000 is to be required from the successful bidder, as follows. $12,500 to be paid when all the conduits within the one-mile square are under ground; the balance when the entire system is ready for operation. The new specifications provide that the city shall have an option to become purchaser of the successful bidders' plant any system at any time within 18 months prior to the expiration of the contract, the value of the property to be determined by a board of appraisers composed of three disinterested citizens. The plant to be completed May 1.

DETROIT, MICH.—The East Side Electric Co. has applied for a franchise for furnishing light and heat. A portion of the plant is to be completed by Dec. 15.

MARSHALL, MICH.—An election will be held Aug. 26 to vote on the question of issuing $63,000 in bonds for improving the electric plant and water-works.

NILES, MICH.—Chas. Chapin, a capitalist, has let contracts for a power plant at the Buchanan dam, to furnish power and light to towns, mills and street railways, according to reports.

NORWAY, MICH.—W. J. Hayes & Sons, of Cleveland, O., have been awarded the $25,000 of bonds for the proposed electric plant.

KANKAKEE, ILL.—A company is said to have been formed to build seven power dams on the Kankakee River, to cost about $150,000. It is understood that as soon as this company has begun work another company will be organized to build power plants, etc., to cost about $1,000,000. E. R. Beardsley, Pres., Waldron, Ill.

LA CROSSE, WIS.—Three lighting companies of this city, the La Grosse Edison Light Co., capital $100,000; the La Crosse Gas Light Co., capital $150,000; the Brush Electric Light & Power Co., capital $80,000, were sold to Chicago capitalists Aug. 6. The companies will be under one management. The new owners will continue business with increased capital of $500,000.

LA GRANGE, ILL.—Rollin Ellison has applied for a franchise for a plant to furnish light, heat and power.

OSHKOSH, WIS.—The Oshkosh Electric Light & Power Co. has been reorganized and is preparing to rebuild its plant, it having secured a 10-year contract.

WEST SUPERIOR, WIS.—Bids are asked by the city clerk for lighting the city with electricity or gas from Sept. 1.

MUSCATINE, IA.—The council committee is considering the question of building an electric plant. B. C. Benham, Cy. Clk.

ROLFE, IA.—Jas. Fox and W. P. Wheeler are on a committee to investigate the question of building an electric plant.

LUVERNE, MINN.—Contracts for the materials for the proposed electric plant have been awarded as follows: E. C. Schwartz, Recdr.: Robinson & Cary Co., St. Paul, one 66-in. x 18-ft. boiler, $2,290; General Electric Co., New York, one 2,000-light arternator, $2,525.

EMPORIA, KAN.—An election will be held soon to vote on the question of issuing $20,000 in bonds to improve the electric plant.

KANSAS CITY, MO.—An election will be held in October to vote on the question of issuing bonds for an electric plant to cost about $300,000. Alderman Beardsley, Chn.

KOHOKA, MO.—G. W. Henry, Cy. Clk., writes us that this place has voted to issue $12,800 of bonds for an electric plant and water-works. Geo. C. Morgan, Engr., Royal Insurance Bldg., Chicago, Ill.

ST. JOSEPH, MO.—The question of either improving the electric plant at a cost of about $32,000 or of selling it for $150,000 is being considered. W. C. Stewart, Cy. Electric'n.

EL PASO, TEX.—Bids are asked by the city clerk until Sept. 20 for furnishing this place with about 150 arc lights for 2, 5 or 10 years, according to reports.

COLORADO SPRINGS, COLO.—The Pikes Peak Power Co. proposes to build a new electric plant to cost about $20,000. Z. H. Sherart, Mgr.

SEATTLE, WASH.—The superintendent of the water-works has been directed to report on a plant to operate an electric plant with the surplus water.

LODI, CAL.—G. H. Hillidge, of the Merced Electric Works, is reported as considering the question of building a plant here.

REDDING, CAL.—The McCloud Power Co. proposes to build a power plant, according to reports. R. B. Butler, Vice-Pres.

CHARLOTTETOWN, P. E. I.—Reports state that the Charlottetown Light & Power Co. proposes to combine with the Fuel Electric Co. and the P. E. I. Electric Co. and make improvements. J. M. Robinson, Pres., St. John, N. B., Can.

NEW COMPANIES.—National Electric Light, Heat & Power Co., Newark, N. J.; $200,000; John E. Helm, Frederick C. Fischer, Newark; William Pelzer, New York.

Butte Electric & Power Co., Butte, Mont.; $2,500,000; W. J. Canning, Wm. W. Mansfield, Irving S. Keeler, Jersey City, N. J.

Westmoreland Light, Heat & Power Co., Greensburg, Pa.; $500,000; E. H. Bair, M. L. Painter, James K. Clarke.

Tuolumne Power & Development Co., 525 Main St., East Orange, N. J.; $250,000; Edw. B. Hawkins, Alfred G. Brown, Herbert S. Murphy.

Bay State Illuminating Co., Augusta, Ga.; $50,000; E. G. Briggs, I. L. Fairbanks.

Consumers' Gas, Fuel & Electric Co., Charleston, Ill.; $5,000; Wm. P. Coffey, Joseph Cluke, Charles V. Newman.

Northwest Light & Power Co., Augusta, Me.; $2,000; C. W. Townsend, S. W. Perkins.

Suburban Electric Light Co., Oakland, Cal.; $500,000; J. H. Lawrence, Wellington Gregg, Sr., Jas. L. Robinson.

Henderson Electric Light & Planing Mill Co., Henderson, Tex.; $25,000; E. B. Alford, W. P. White, C. A. Still, Jr.

Citizens' Light & Power Co., Fort Worth, Tex.; $100,000; D. T. Bomar, George E. White, R. I. White.

American Motive Power Co., Pierre, S. D.; $15,000,000; John Martyn Scobee, Lucius C Varnney, Oscar Nelson.

Enterprise Heat, Light & Power Co., La Salle, Ill.; $25,000; Wm. B. Hummer, Geo. A. Wilson, Timothy Lucey.

American Coke & Gas Co., Trenton, N. J.; $1,000,000; Paul Sheldon, Robert Wheelan, Frederick H. Schnacht, Jersey City.

Eastport Electric Light Co., Portland, Me.; $60,000; A. C. Fletcher, Pres. and Treas., Providence, R. I.

Sterling Electrical Mfg. Co., Warren, O.; $50,000; W. A. Smith, C. G. Dennison, F. A. Milliken.

Toledo Railways & Light Co., Toledo, O.; $12,000,000; F. D. Everett, F. W. Moore, G. W. Boudinott.

Central Illuminating, Heating & Power Co., Madison, Ill.; $2,500; E. W. Hilker, Walter Roman, A. Miller.

Forster Electric Light Co., Chicago, Ill.; $250,000; A. A. Rolf, Jacob E. Takken, Peter J. Karstens.

Citizens' Lighting Co., Louisville, Ky.; $1,000,000; Anthony N. Brady, Wm. F. Sheehan, New York, N. Y.; A. M. Worthington, Louisville.

Arcadia Electric Light, Ice & Telephone Co., Arcadia, Fla.; $20,000; John J. Heard, John L. Jones, Chas. C. Chollar.

Gainesville Light & Power Co., Gainesville, Ga.; $100,000; F. L. Murray, S. C. Dunlap, J. J. Spalding.

Greensboro Electric Co., Greensboro, N. C.; $250,000; M. D. Barr, John Karr, Z. V. Taylor.

New Jersey Power Storage Co., Newark, N. J.; $100,000; Wm. H. V. Reimer, Dana B. Maul, East Orange; Charles H. Harrison, 273 Halsey St., Newark.

Tuckerton Electric Co., Haddonfield, N. J.; $10,000; John H. Bell, M. W. Pharo, A. E. Pharo.

Watkins Consolidated Gas & Electric Co., Watkins, N. Y.; $100,000; Charles B. Reid, New York; J. J. McKee, Bethlehem, Pa.; A. R. Horn, Catasauqua, Pa.

Spencer Electrical Co., New York, N. Y.; $100,000; J. H. Spencer, New York; Henry Dawson, Richmond Hill, L. I.; C. L. Child, Montclair, N. J.

Wheeler-Green Electric Co., Rochester, N. Y.; $4,000; Whiting J. Da Lee, Clarence Wheeler, Thomas A. Green.

Randall Electric Co., New York, N. Y.; $10,000; P. M. Randall, N. E. Randall, J. G. Gorman.

BRIDGES.

NEWPORT, ME.—P. H. Coombs, C. E., Bangor, is preparing plans for repairing the bridge pier.

ALBANY, N. Y.—The American Bridge Co., New York, has been awarded the contract for building a steel bridge at Pratt's Landing, at $16,790. John N. Partridge, Supt.

BINGHAMTON, N. Y.—Bids are asked until Aug. 27 for constructing a bridge across the Susquehanna River at the foot of Exchange St., as stated in our advertising columns. I. C. Hull, Cy. Clk.

BUFFALO, N. Y.—The following bids were the lowest received for constructing a bridge over Cazenovia Creek at Stephenson St.: Thomas Brown, for excavation, $1,000; J. J. Churchyard, trestle, $1,992; D. E. Horton, span and trestle, $4,150.

UTICA, N. Y.—The following bids were received for constructing bridges over the Mohawk River at Genessee St. and at Park Ave.: (1) Genesee St.; (2) Park av.: Penn Bridge Co., Beaver Falls, Pa., (1) $35,500, (2) $23,500; Owego Bridge Co., New York, (1) $27,800 to $45,000, (2) $15,000 to $25,000; American Bridge Co., New York, (1) and (2) $65,000; Canton Bridge Co., Canton, O., (1) $35,250, (2) $23,600; Berlin Construction Co., Connecticut and New York, (1) $36,000, (2) $22,000.

WINDSOR, N. Y.—A bridge is to be built here at a cost of $15,000.

PHILADELPHIA, PA.—Plans for a bridge across Lansdowne Glen, to cost $100,000, are being prepared for the park commissioners.——The board of surveyors has confirmed the plan of a bridge to be erected across 59th St. by the Pennsylvania R. R. Co.

READING, PA.—The highway committee has approved the plans for the Front St. bridge over the Lebanon Valley R. R.

TULLYTOWN, PA.—Bids are asked until Aug. 29 by the commissioners for constructing a bridge over Martin's Creek. Address County Clerk Funk.

VALLEY, PA.—The freeholders of Hunterdon and Warren counties have decided to construct a two-span steel truss bridge over the Musconetcong, near here.

WEISSPORT, PA.—Anthony & Lentz have been awarded the contract for constructing the bridge across Stony Creek, Penn Forest, at $6,725, and Krum & Arner for constructing the bridge across the Mahoning River near Lehighton, at $6,480.

WASHINGTON, D. C.—Bids are asked until Aug. 31 by the district commissioners for furnishing the steel work and constructing a Melan arch bridge across Rock Creek, as stated in our advertising columns.

WILMINGTON, DEL.—The following bids were received on Aug. 6 for constructing a bridge across the Brandywine River at Clayton St.: Patrick Fahey, $3,999 (accepted); William Krause & Sons, $4,099; A. S. Reed, $4,700; Ransome Construction Co., $4,785; Merritt & Co., $7,367.

STAUNTON, VA.—Bids are asked at once for reconstructing a steel bridge across Naked Creek in North River district. R. S. Blair, Road Comr.

DUBLIN, GA.—The following bids were received July 30 for constructing the extension to the Alcovy River bridge: George H. Crafts & Co., Atlanta, $10,437; Virginia Bridge & Iron Co., $11,200; Kansas City Bridge Co., Kansas City, Mo., $12,498; Champion Bridge Co., Wilmington, O., $12,900; Southern Bridge Co., Birmingham, Ala., $13,000; Geo. E. King Bridge Co., Atlanta, $14,000.

FLORENCE, ALA.—The Converse Bridge Co., Chattanooga, Tenn., has been awarded the contract for constructing a bridge across Butler Creek, near Pruitton, at $2,600.

MEADVILLE, MISS.—The board of county supervisors has declared its intention of issuing $32,000 in bonds for constructing four steel bridges across Homochitto River and Middle Fork Creek. Address President Rodriquez.

ANDERSON, IND.—The property owners north of White River are agitating a movement to build a bridge across the White River, connecting this city and North Anderson.

FLINT, MICH.—The American Bridge Co., New York, has been awarded a contract for constructing a bridge across the river on South Saginaw St., at $18,994.

BEMENT, ILL.—Bids are asked until Aug. 20 for constructing four small bridges. Ira O. Baker, Engr., Champaign.

MURPHYSBORO, ILL.—A site for the proposed $5,000-bridge across the Big Muddy River has been selected by the commissioners of Somerset, Carbondale, De Soto and this township at the intersection of the four townships.

HELENA, MONT.—The county commissioners are considering the question of constructing a bridge across the Missouri River near Craig.

GRAND JUNCTION, COLO.—A bridge is to be built across Plateau Creek at Collbran.

SEATTLE, WASH.—Bids are asked until Aug. 23 for constructing a bridge across Duwarnish channel, in Elliott Bay. Geo. R. Lamping, Clk. County Comrs.

TACOMA, WASH.—The Northwest Bridge Co. has been awarded a contract for constructing a bridge across the Puyallup River, at $11,985.

WEISER, IDAHO.—Bids are asked until Sept. 8 for constructing a bridge across the Main Weiser River; also for the fills for the approaches. I. F. Smith, Clk. County Comrs.

TORONTO, ONT.—A $4,000-bridge is to be built at Petewawa, a $6,500 bridge at Wigie, and a bridge across the Peninsula Creek at Muskoka. Address Provincial Engineer McCallum.

SACKVILLE, N. S.—Bids are asked at once by the provincial board of works for constructing a metal-covered bridge at this place.

GLENWOOD, MAN.—Bids are asked until Sept. 1 for constructing a 75-ft. span steel bridge across the Souris River at Monteith. J. W. Breakley, Cy. Clk.; G. A. Simpson, Government Engr., Winnipeg.

BUILDINGS.

BOSTON, MASS.—G. H. Smith has completed plans for a 4-story building in Mechanics St., to cost $60,000.

NEW YORK, N. Y.—Bids are asked by the board of education until Aug. 21 for heating, ventilating, electric wiring, etc., and erecting two new school buildings.——Randolph Guggenheimer, Pres. City Council, will ask the board of estimate for $250,000 for 10 public bath houses.——John D. Rockefeller proposes to build a residence at Pocantico Hills to cost about $1,000,000.——The Bush Co., one of the dock and warehouse concerns of Brooklyn, is to acquire by purchase from the Hunt estate eight blocks of property along the South Brooklyn water front, between 41st and 51st Sts., west of First Ave. It is planned by the Bush Co. to develop the property by building upon it docks, piers, and warehouses, which will form an extension of the company's business at the foot of 42d and 43d Sts.

ROCHESTER, N. Y.—The Stecker Lithograph Co. proposes to build a $60,000 building on Goodman St.

TROY, N. Y.—It is stated that work on the proposed union station, to cost $300,000, will begin this fall, and bids will soon be asked. The building will be 400 ft. long and 47 ft. wide. Address Superintendent Harrington.

WESTFIELD, N. Y.—Bids are asked until Aug. 17 for a high school building. Orchards & Joralemon, Archs., Niagara Falls.

NEWARK, N. J.—Bids are asked until Aug. 19 for removing buildings now on the site for the proposed city hall. Jas. T. Neary, Clk. City Hall Comrs.

NEW ORANGE, N. J.—It is stated that a building will be erected for an international league of press clubs, to cost about $250,000.

TRENTON, N. J.—The present court house is to be torn down at once to make way for the proposed new building, plans for which are being prepared by W. W. Slack.

HARRISBURG, PA.—The question of building a city hall is being considered.

PHILADELPHIA, PA.—A syndicate proposes to build a 12-story apartment house at Locust and 16th Sts., to cost $1,000,000; N. B. Crenshaw, of the Girard Trust Co., is interested.——Milligan & Webber are preparing plans for a $1,000,000 apartment building at 40th and Walnut Sts. They are also preparing plans for an apartment house in Atlantic City for J. L. Young to cost $400,000, bids for the construction to be opened Aug. 19.——Herman Miller is preparing plans for a 22-story office building, to cost $2,000,000.—Wilson Bros. & Co., Archs., have let the contract for a six-story building on Filbert St. for Morris Dannenbaum to John R. Wiggins.——Geo. L. Felt has filed plans for a 12½-story apartment house on 47th St., to cost $600,000.——Geo. F. Payne & Co. have been awarded the contract for a seven-story building at 16th and Arch Sts. for Stephen Greene; Guy King, Arch.——Frank M. Dey & Bro., Archs., want bids for a gymnasium to cost $350,000 for the U. of Pa., and for an addition to the School of Industrial Art, Broad and Pine Sts., to cost $175,000.——Chas. Balderston has completed plans for an eight-story manufacturing building at 412 S. 13th St. for H. K. Mulford Co., to cost $60,000.——The U. of P. will build a new building for the veterinary department, to cost $60,000. C. C. Harrison, Provost.——Otto C. Wolf has completed plans for five breweries in Germantown for Theo. Finkenauer.——Wm. H. Zimmermann writes us that he has purchased a lot at 7th and Broad Sts. for a new hotel.

PITTSBURG, PA.—Work on the proposed new building for the C. D. & P. Telegraph Co., to cost $200,000, has been begun by Henry Shenk. Alden & Harlow, Archs.——U. J. Peoples has completed plans for a family hotel on South Negley Ave., to cost $600,000, for a syndicate headed by Thos. L. Pfarr, Jr.——Reports state that Wm. Witherow, of the Hotel Duquesne, proposes to build a new apartment

house for Shadyside, to cost about $350,000.——Hays, Sefton & Co. have secured the contract for a $75,000 church building for the Second United Presbyterians.——Beezer Bros. are reported as preparing plans for a 12-story warehouse for Kelly & Jones.——A permit has been granted for the new building to cost $50,000 for the Phipps School of Botany.——Riter & Conley have filed plans for a three-story warehouse to cost $50,000. E. J. House has a permit for an office building to cost $175,000.

INSTITUTE, W. VA.—Bids are asked until Aug. 21 for erecting a two-story trades' building for the W. Va. Colored Institute. Geo. Henneman, Arch., Charleston, W. Va.; C. B. Scott, Pres.

RALEIGH, N. C.—Bids are being received by Barrett & Thompson, Archs., for a four-story office building for the Carolina Trust Co.

ATLANTA, GA.—Reports state that the Southern Bell Telephone & Telegraph Co. will erect a new building in Pryor St., to cost about $40,000. Bleckley & Tyler, Archs.

CUTHBERT, GA.—This place has voted to build a new jail.

JACKSONVILLE, FLA.—Jos. D. Burbridge is preparing to rebuild the opera house.

TALLAHASSEE, FLA.—Work will soon commence on the proposed extension to the capitol building, to cost about $75,000. F. P. Milburn, Arch., Columbia, S. C.; W. A. Blount, Chn. Com., Pensacola.

BIRMINGHAM, ALA.—Stone Bros., of New Orleans, La., and Wm. C. Weston, of Chicago, are preparing plans for a 10-story office building at 1st Ave. and 20th St., to cost about $250,000, for W. H. Woodward, of Weid, Me.

LAKE CHARLES, LA.—Bids are asked until Sept. 5 for additions to the county court house. Jos. Reily Gordon Co., Archs., Dallas and Shreveport, Tex.

VICKSBURG, MISS.—Davis, Larkin & Co., of Chicago, have received the contract at $42,145 for a new city hall. Barnes & Co., of Greenville, Miss., were the next lowest bidders at $44,537.

CINCINNATI, O.—The P., C., C. & St. L. Ry. Co. have completed plans for a large fruit warehouse.

CLEVELAND, O.—Bids are asked until Aug. 21 for a hot-water heating plant in Wade Park. S. P. Salen, Dir.

CONGERVILLE, IND.—Bids are asked until Aug. 24 for erecting a new brick school building. Wing & Mahurin, Archs., Fort Wayne, Ind.

VINCENNES, IND.—New bids are asked by the county commissioners for a new jail to cost $35,000.

GRAND RAPIDS, MICH.—Plans have been completed and bids are asked for the construction of the proposed Immen Block for Frederick Immen.

CHICAGO, ILL.—Hibbard, Spencer, Bartlett & Co. have begun the construction of a warehouse on North Water St., to cost $500,000; Frost & Granger, Archs.——The Western Cold Storage Co. proposes to build two warehouses to cost about $500,000, according to reports.——Plans have been filed by the Anglo-American Provision Co. for storage houses, etc., at 39th St. and Center Ave., to cost $120,000; by Julius Frank, for a four-story brick apartment house, to cost $70,000; by Holmgren & Johnson, for three 3-story apartment houses at 4755 to 4759 St. Lawrence Ave., to cost $60,000; by H. Stateman, for two 6-story flats, to cost $50,000; by the directors of the Newberry Library, for a six-story brick factory, to cost $70,000; by W. J. Bryson, for an 8-story brick apartment house at 4926 Lake Ave., to cost $200,000.——Carl Almquist has completed plans for an apartment house at Michigan and Garfield Boulevards, to cost $100,000.

CHICAGO, ILL.—Press reports state that plans for a central railroad station here, estimated to cost $40,000,000, are being prepared, and will be submitted at a meeting of railway officials to be held Aug. 15. Eighteen of the 22 companies with Chicago terminals have approved the scheme as drawn by Alderman Dixon, and members of the council committee appointed to investigate the question of a single terminal believe the plan can be carried to a successful conclusion. The Illinois Central, Northwestern, Pennsylvania, and Great Western railroads are the only ones which have thus far not given their approval.

PEORIA, ILL.—Bids are asked until Aug. 31 for a fire engine house. E. A. Furry, Comr. Pub. Wks.

NATIONAL HOME, WIS.—Bids are asked until Aug. 20 for a nurse's headquarters. Cornelius Wheeler, Gov. of Home.

OSHKOSH, WIS.—The council has voted $50,000 for a new school building.

MINNEAPOLIS, MINN.—The question of rebuilding the Exposition building for a music hall at a cost of about $300,000 is being considered. E. P. Overmire, Arch.

ST. PAUL, MINN.—Bids are asked until Sept. 24 for the mechanical equipment and power house, heating, ventilating, wiring, etc., for the new state capitol building. Cass Gilbert, Arch., 524 Endicott Bldg., St. Paul, and 704, 111 Fifth Ave., New York. Channing Seabury, Vice-Pres.

CANISTOTA, S. DAK.—Bids are asked until Aug. 24 for a brick school building. J. A. Healy, Clk.

BEAUMONT, TEX.—Thos. Brown, of this place, proposes to build an office building, to cost about $50,000. Wilbur T. Mills, Arch., Columbus, O. It is stated that four other buildings, about the same size, are proposed by other parties.

PARIS, TEX.—The Texas & Pacific R. R. Co. proposes to build a new depot here at a cost of about $100,000.

FORT COLLINS, COLO.—Plans are being prepared for a new building for the department of irrigation, to cost $40,000, for the State Agricultural College.

STILLWATER, OKLA. TER.—Bids are asked until Sept. 2 for an addition to the library building, for an engineering building, etc., for the Agricultural & Mechanical College. J. Foucart, Guthrie, Okla., and C. C. Cooke, Stillwater, Archs.

REDDING, CAL.—Bids are asked until Sept. 7 for constructing a brick school building, to cost $30,000. Ernest M. Hoen, Arch., Sacramento, Cal.

RIVERSIDE, CAL.—Bids are asked until Sept. 5 for a county jail building. A. W. Boggs, Arch., Riverside; W. W. Phelps, Clk.

BOISE, IDAHO.—John Lemp proposes to erect a six-story office building to cost $200,000.

MONTREAL, QUE.—Bids are asked until Sept. 3 for erecting a grain elevator, to be completed by Aug. 1, 1902, as stated in our advertising columns. Extension from Aug. 20. David Seath, Secy. Harbor Comrs., 57 Common St.

MONTREAL, QUE.—Bids are asked until Aug. 20 for building a market. L. O. David, Cy. Clk.

VANCOUVER, B. C.—City Clerk McGuigan writes us that the proposition to build a jail and five halls was recently defeated.

WATER-WORKS.

SOLON, ME.—Bids are being received for constructing works, to cost $45,000.

RYEBEACH, N. H.—J. W. Kelley, attorney for the North Shore Water Co., writes us that it will be decided this month what work will be done on the proposed works.

HULL, MASS.—The question of securing a better and cheaper water supply than that furnished by the Hingham Water Co. is being considered by H. D. Hutchinson, Geo. L. Torristake and F. L. Milliken.

FORT GREBLE, R. I.—The following bids were received by Maj. H. P. Young, Com. Q. M., for a pump and boiler house, etc., at Fort Greble: Darling & Slade, Fall River, Mass., construction, $8,463; plumbing, $799; electric wiring, $55; installing pumping system, $5,900; entire work complete, $15,217. Acme Water Storage & Construction Co., New York city, construction, including plumbing and electric wiring, $7,144; installing pumping system, $6,669; entire work complete, $13,253. Chas. J. Sonderman, Buffalo, N. Y., construction, $5,742. P. J. Murphy, Newport, R. I., plumbing, $467. Wm. F. Davis, Providence, R. I., plumbing, $571.

COLLINSVILLE, CONN.—The Collinsville Water Co. is preparing to build its proposed works, to cost $10,000. J. H. Bidwell, Pres.; H. C. Fisher, Secy.

BATAVIA, N. Y.—Hugh C. Smythe, of Pittston, Pa., has applied for a franchise for the Batavia Water & Gas Co.

BINGHAMTON, N. Y.—A. B. Cannan has been awarded the contract at $7,230 for constructing the building for the filter house.

BREWSTER, N. Y.—J. R. Thompson, of Amenia, N. Y., has again applied for a franchise for works.

CANDOR, N. Y.—Reports state that this place and Newark Valley want works.

CARTHAGE, N. Y.—This place has voted against the proposition to issue $6,000 in bonds for an auxiliary steam pumping plant. The question of securing a new water supply from the springs near Belfert is being considered. Jas. Brownell, Engr.

GOVERNOR'S ISLAND, N. Y. H.—Bids are asked until Aug. 28 for sinking an artesian well. S. R. Jones, Q. M.

HAVERSTRAW, N. Y.—H. A. O. Post writes us that a reorganization and consolidation of three companies, the Haverstraw, the West Haverstraw and Stony Point Cos., have been effected. A small dam, a new Worthington pump, a new reservoir and the laying of about 8,000 ft. of 10-in. mains are all the improvements proposed. J. D. Driscoll, Supt.

JAMESTOWN, N. Y.—S. A. Carlson, Secy. Bd. Pub. Wks., writes us that the matter of new works is being investigated and a report will be submitted shortly. J. F. Witmer, Engr., Buffalo.

OSWEGO, N. Y.—The question of purchasing the works of the Oswego Water-Works Co. for $550,000 will soon be voted upon.

OYSTER BAY (L. I.), N. Y.—The Oyster Bay Water-Works Co. has been defeated in its proposition to furnish the city with 50 fire hydrants.

PLEASANTVILLE, N. Y.—Bids are asked until Aug. 28 for furnishing the materials and for constructing works, as stated in our advertising columns. D. P. Hays, Pres.

SARANAC LAKE, N. Y.—J. C. Russell, Pres., writes us that the proposed works will consist of two pumps, of 1,000,000 gallons capacity, reservoirs, mains, etc., to cost $50,000. No bids have yet been asked.

STILLWATER, N. Y.—It is stated that work on the new state dam on the Beaver River at this place will soon be begun; estimated cost, $80,000.

TROY, N. Y.—Bids are asked by the board of contract and supply until Aug. 20 for constructing the Tomhannock branch of the proposed new works.

WAVERLY, N. Y.—This place has voted not to build works. Efforts will be made, according to reports, to purchase the works of the Waverly Water Co.

BERNARDSVILLE, N. J.—Frank B. Allen has petitioned for permission to lay mains in the streets, and to furnish the place with 250,000 gallons of water a day.

CALDWELL, N. J.—A committee is to be appointed to investigate the matter of works and to have plans, etc., prepared. Address Mayor Espy.

HIGH BRIDGE, N. J.—Smith & Jenkins, of Dover, N. J., have completed plans for the proposed works.

MATAWAN, N. J.—This place has voted to issue $35,000 of bonds for city works. W. A. Rodgers, Clk.

APPOLO, PA.—Chandler & Co., of Beaver Falls, Pa., have been awarded the contract by the Pennsylvania Water Co. for constructing a dam and filter plant for this place and Leechburg, to cost about $200,000.

NEW FLORENCE, PA.—P. M. McCann has been awarded the contract at about $25,000 for constructing a new reservoir of 500,000 gallons capacity and two miles of pipe line.

PITTSBURG, PA.—E. M. Bigelow, Dir. Pub. Wks., is reported as stating that work on the proposed filtration plant will begin next month, and will require nearly 18 months to finish. Morris Knowles, Ch. Engr.

UNIONTOWN, PA.—John R. Bennett has been awarded the contract by the Uniontown Water Co. for building a reservoir of 40,000,000 gallons capacity. There will be a masonry dam 40 ft. high and 800 ft. long.

READING, PA.—We are informed that the following bids were received Aug. 10 for constructing a 3,500,000-gallon filter plant, under designs submitted by the bidders; Emil L. Nuebling, Supt. and Engr.: Pennsylvania Erecting Co., 1421 Filbert St., Philadelphia, all grading, complete, $350; masonry (brick, stone and concrete), complete, $21,000; piping, complete, $5,700; iron and steel work, complete (gates and machinery not included), $1,750; machinery, complete (valves, pumps, engines and all working parts), $3,250; sand, gravel or other filtering material, complete, $3,125; wood work, complete (in tanks, buildings or elsewhere), $1,200; painting, glazing and roofing, complete, $800; six (6) months' superintendence, $500; other work, complete, $200; total for complete installation of plant, $37,975. P. A. Maignen, 1310 Arch St., Philadelphia, all grading, complete, $1,463; masonry (brick, stone and concrete), complete, $12,610; piping, complete, $4,424; iron and steel work, complete (gates and machinery not included), $1,554; machinery, complete (valves, pumps, engines and all working parts), $969; sand, gravel or other filtering material, complete, $15,437; wood work, complete (in tanks, buildings or elsewhere), $2,202; painting, glazing and roofing, complete, $1,737; six (6) months' superintendence, $1,200; other work, complete, $3,142; total for complete installation of plant, $44,738. Following bid was received for 3,500,000-gallon slow-sand filter plant under plans submitted by department: H. E. Ahrens & Bro., 821 Schuylkill Ave., Reading, 9,000 cu. yds. of excavation, 38 cts.; 1,600 yds. broken stone and clay filling, $1.25; 2,400 yds. concrete, $3.50; 540 yds. brick masonry, $8; 1,200 yds. broken stone for underdrains, $1.75; 6,800 yds. filter sand, $1.75; 450 yds. cinder filling, 75 cts.; 1,700 sq. yds. vitrified brick paving, 85 cts.; 610 yds. roadway, 50 cts.; 3,000 yds. sodding, 20 cts.; 980 lin. ft. 6 × 25½-in. coping, $1.30; 336 ft. 6 × 30-in. coping, $1.65; 35 ft. 6 × 36-in. coping, $1.85; 307 ft. 6 × 20-in. curbing, 75 cts.; 156 ft. 24-in. vitrified pipe, $1.75; 246 ft. 20-in. pipe, $1.50; 3,240 ft. 6-in. underdrains, 22 cts.; cut-stone work, complete, $85; wood work and carpenter work in buildings, complete, $620; hardware in buildings, complete, $90; plastering in buildings, complete, $80; painting, glazing and roofing, complete, $375; total, $39,713. Note.—Piping, machinery and cement to be furnished by city.

SHARPSBURG, PA.—The council is preparing to extend the works. E. A. Lawrence, Solicitor.

YARDLEY, PA.—It is stated that a franchise for works will be granted to C. Taylor Leland, of Quakertown, Pa., and Benj. P. Warwick, of Philadelphia.

HAVRE DE GRACE, MD.—The Havre de Grace Water Co. proposes to improve its works at once. Geo. W. Albaugh, of Westminster, Md., is interested.

FORT MONROE, VA.—Bids are asked until Aug. 27 for sinking a tubular well 2,500 ft. deep. C. P. Townsley, Q. M., U. S. A.

ARLINGTON, GA.—It is proposed to put in mains, gasoline engine, pump, etc., for works.

FAYETTE, MISS.—Geo. V. D. Schober, Town Clk. writes us that it will probably be several months before construction on the proposed works is begun. The water supply will be secured from deep wells. Pop., 800.

MURRAY, KY.—This place has voted not to grant a franchise for works to Lloyd Bloomfield.

CLEVELAND, O.—Bids are asked until Sept. 6 for furnishing, f. o. b. Cleveland, three 36-in. stop valves, two 42-in., one 48-in., two 48-in. for light service and two 42-in. check valves. C. P. Salen, Dir. Pub. Wks.

COLUMBUS GROVE, O.—M. W. Wells, Mayor, writes us that no engineer has yet been engaged to prepare plans for works, the water to be secured from wells.

FINDLAY, O.—Reports state that the question of building new works, the water supply to be secured from wells, is being considered.

GENEVA, O.—Bids are asked until Sept. 4 for a pumping plant, filter plant, etc., for the works. B. F. Hewit, Village Engr.; A. H. Reed, Clk.

PLYMOUTH, O.—J. W. Webb, Mayor, writes us that this place will vote Aug. 14 on the question of works.

BLOOMFIELD, IND.—The Bloomfield Water Co. has been incorporated with a capital of $10,000, by J. P. Lucas and C. O. Luca.

IRVINGTON, IND.—The question of building joint works for this place, Tuxedo, etc., is being considered, according to reports.

LAFAYETTE, IND.—Bids are asked until Aug. 19 for furnishing the materials and building an addition to the pumping station. Ed. Cunningham, Supt.

SCOTTSBURG, IND.—The question of works and an electric plant is being considered.

TERRE HAUTE, IND.—Plans for municipal works are reported as being prepared.

ISHPEMING, MICH.—The council is considering putting in water meters and making other improvements, to cost about $15,000. P. H. Devine, Supt.; Jas. Clancey, Chn.

CHICAGO, ILL.—John Ericson, Cy. Engr., writes us that he has recommended that an 8-ft. tunnel be built from the present 68th St. crib southwest about six miles from the shore line to about 103d and State Sts. The tunnel is to terminate in a pumping station of 60,000,000 gallons capacity per 24 hours. This improvement is required for an increased water supply to the south and southwest portions of the city.

MOUNT OLIVE, ILL.—The question of works to cost about $35,000 is being considered.

NEPONSET, ILL.—The question of works is reported as being considered.

NORMAL CITY, ILL.—The question of works is being considered.

SALEM, ILL.—J. N. [illegible], writes us that a committee will be appointed at once to consider the water question. Pop., 2,000.

APPLETON, WIS.—Bids will soon be asked by the council for constructing works. It is stated that Geo. Venner, of Boston, Mass., has offered to buy the works of the Appleton Water Co. for $200,000.

BARABOO, WIS.—The council has been asked to take immediate steps towards the construction of city works.

GLENWOOD, WIS.—The council is reported as considering estimates for a water tank, tower, a 10-HP. gasoline engine, etc.

LA CROSSE, WIS.—R. F. Weston has been awarded the contract at $18,780 for extending the water mains. Other improvements to the works to cost about $200,000 are proposed by the board of public works.

MERRILLAN, WIS.—This place has voted to issue $10,000 in bonds for works and an electric plant.

PRAIRIE DU SAC, WIS.—Reports state that this place will soon have works.

MASON CITY, IA.—The council has decided to build works and an electric plant.

DULUTH, MINN.—It is proposed to extend the water mains to Hunter's Park and Glen Avon at a cost of about $20,000. L. N. Case, Mgr. Water-Works.

EAST GRAND FORKS, MINN.—An injunction brought against this place, restraining it from issuing $15,000 in bonds for works, has been sustained.

WYMORE, NEB.—C. C. Gafford, Chn. Com., writes us that the city will require a mile of 8 or 10-in. mains, a gasoline engine, pumps, etc. Estimates for these supplies and for constructing same are wanted.

SIOUX FALLS, S. DAK.—It is stated that the council is arranging for the construction of works.

YANKTON, S. DAK.—Plans for a better water supply are being considered.

ARMSTRONG, MO.—The question of works is being considered by this place, Marshall and Fayette.

NEOSHO, MO.—Reports state that the council is considering the question of improving the works.

ELGIN, TEX.—Reports state that City Engineer Sneed, of Austin, Tex., is making surveys for works. W. H. Rivers, Chn. Com.

COLORADO SPRINGS, COLO.—City Engineer E. W. Case has submitted a report on the proposed improvements to the works, to cost about $325,000. Address Aldermen St. John and Clark.

MODESTO, CAL.—R. H. Goodwin, Ch. Engr., 240 Montgomery St., San Francisco, Cal., writes us that the Modesto Irrigation District will be ready for bids in three months for constructing the crossings for the main canal, requiring about 2,000,000 ft. of lumber, and also about 100 miles of distributing canals.

WINTERS, CAL.—Bids are asked until Aug. 17 for sinking two wells for the proposed water supply. H. V. Walsh, Clk.

SEWERAGE.

BEVERLY, MASS.—C. E. Trumbull & Co., Boston, have been awarded the contract for constructing the Cabot St. sewer at $27,625.

BOSTON, MASS.—The following bids were received on Aug. 6 by the Metropolitan water and sewerage board for constructing Sec. 30 of the Neponset Valley sewer in West Roxbury, Newton and Brookline: H. P. Nawn, $110,454; H. A. Hanscon & Co., $52,040; F. W. McCusker, Waltham, $33,027; T. J. Kelly, Brookline, $30,211; engineer's estimate, $26,871.

MELROSE, MASS.—Bids are asked until Aug. 21 for constructing sewers and furnishing materials, as stated in our advertising columns. John Larrabee, Mayor.

BATAVIA, N. Y.—The question of installing a sewerage system, to cost about $300,000, is being discussed.

CHURCHVILLE, N. Y.—The aldermen have decided to improve the sewers and street lights.

NIAGARA FALLS, N. Y.—The board of public works has recommended the construction of sewers to cost over $175,000.

ONEIDA, N. Y.—Bids are asked until Aug. 25 by the board of public works for constructing a stone sewer in Sherman St.

SANDY HILL, N. Y.—The $62,500 sewer bonds were sold on Aug. 1 to N. W. Harris & Co., New York, at a premium of $555. The contract for the work has already been let. O. J. Sullivan, Village Clk.

CAMDEN, PA.—The council has decided to issue $50,000 in bonds for constructing sewers.

ERIE, PA.—The Mill Creek sewer commissioners have asked for $170,000 for constructing sewers and a disposal plant.

FRANKLIN, PA.—Bids are asked until Aug. 17 for constructing sewers in Elk St. E. Juenet, Cy. Clk.

GLASSPORT, PA.—Bids are asked until Aug. 17 by the sewer committee for constructing brick and terra cotta sewers in certain streets. P. S. McMullan, Borough Engr.

PITTSBURG, PA.—Bids are asked until Aug. 21 for constructing 15, 18, 20 and 24-in. pipe sewers in 14 streets and alleys. Edward M. Bigelow, Dir. Pub. Wks.

LAUREL, DEL.—Bids are asked until Aug. 26 for extending sewers, as stated in our advertising columns. H. B. Hitch, Secy. Commissioners; Chas. S. Vork, Engr., 1526 E. Biddle St., Baltimore, Md.

WILMINGTON, N. C.—An election will be held on Sept. 5 to vote on the question of issuing $100,000 in bonds for a sewerage system.

WAYCROSS, GA.—The council has passed a resolution ordering the sewerage system to be extended.

DEMOPOLIS, ALA.—The question of installing a system of sewerage is being discussed.

BOWLING GREEN, O.—Bids are asked until Aug. 20 for constructing pipe sewers in certain streets. Alex. Williamson, Cy. Clk.

CLEVELAND, O.—Bids are asked until Aug. 21 for constructing sewer and water-house connections in Lorain St. Chas. P. Salen, Dir. Pub. Wks.

COLUMBUS, O.—The proposition to issue $2,225,000 in bonds for a sewage disposal plant was defeated at the election held Aug. 3. C. M. Addison, Secy. Bd. Pub. Wks.

COLUMBUS, O.—Bids are asked until Aug. 20 for delivering within six months of time of contract, manholes, sewer pipe, catchbasins, cement, etc. Clarence M. Addison, Clk. Bd. Pub. Wks.

CONNEAUT, O.—It was voted on Aug. 9 to issue $33,500 bonds for sewers in districts 3 and 4. G. B. Pike, Cy. Engr.

GLENVILLE, O.—Bids are asked until Sept. 2 for constructing storm water sewers in St. Clair St., and in road from St. Clair St. to Euclid Ave. Ira C. Farley, Village Clk.

SPRINGFIELD, O.—A resolution has been adopted by the board of public affairs instructing the city engineer to prepare plans for a trunk sewerage system.

TOLEDO, O.—The city engineer has been instructed to furnish plans and specifications for sewers in certain streets.

YOUNGSTOWN, O.—Bids are asked until Aug. 24 for constructing sewers in three streets and for grading in Buckeye St. C. E. Cross, Cy. Clk.

ELKHART, IND.—Bids are asked until Aug. 28 for constructing a trunk sewer and laterals. L. E. Hitchcock, Cy. Engr.

COLDWATER, MICH.—Reports state that a sewerage system is to be installed at this place.

HAMMOND, IND.—Bids are asked until Aug. 27 for constructing 15 and 18-in. tile sewers in three streets. Peter J. Lyons, Cy. Engr.

AURORA, ILL.—Bids are asked until Aug. 17 by the board of local improvements for constructing sewer and water house connections in three streets. M. G. Stolp, Engr.

CERRO GORDO, ILL.—Bids are asked until Aug. 31 for about 20,000 cu. yds. of excavation and about 9,000 ft. of 16, 18 and 20-in. tile drains. P. C. Middleton, Cy. Clk.; W. J. Day, Engr., Bement.

KANKAKEE, ILL.—Local press reports state that bids will be advertised for this fall for constructing the Riverview and Soldier Creek sewers. Address City Engineer Gregg.

PEORIA, ILL.—Reports state that about one mile of sewers will be constructed at the insane asylum.

OSHKOSH, WIS.—Bids are asked until Aug. 24 for constructing a sewer in Wangoo St. Frank Monahan, Chn.

CEDAR RAPIDS, IA.—Bids are asked until Aug. 23 for constructing 6 to 15-in. pipe sewers in eight streets. R. A. Wallace, Chn. Pub. Impt. Com.

KEOKUK, IA.—Bids are asked until Aug. 30 for constructing about 1,500 ft. of 8-in. sewer with appurtenances. Rose Robertson, Cy. Engr.

HARRISON, ARK.—C. A. Reese, C. E., Fayetteville, has been engaged to make surveys and prepare specifications and estimates for a sewerage and water-works system to cost about $50,000. G. J. Crump, Pres.; P. C. Maggard, Secy. Water and Sewerage Commission.

EL PASO, TEX.—The council has appropriated $2,000 for sewer improvements. Address City Engineer Wimberley.

SALEM, ORE.—Bids are asked until Aug. 20 for constructing 5,425 ft. of the state sewer. Walter Lyon, Clk. State Bd. Capitol Bldg. Comrs.

LOS ANGELES, CAL.—Bids are asked at once by the Hermosa Beach Co. for constructing a sewage disposal plant. A. L. Burbank, Mgr.

PASADENA, CAL.—City Engineer Allin has been directed to make preliminary surveys and estimates of the cost of an outfall sewer about a mile long.

VISALIA, CAL.—Truett & Martin were awarded the contract on Aug. 1 for constructing a sewerage system at $55,500. Nine other bids were received ranging to $76,600.

MONTREAL, QUE.—Sewers are to be constructed in four streets. John R. Barlow, Cy. Surveyor.

WOODSTOCK, ONT.—The board of works will recommend that the city engineer be instructed to prepare plans and specifications for a sewage disposal plant.

GARBAGE DISPOSAL—STREET CLEANING

NEW YORK, N. Y.—Bids for the contract for the removal and disposition of garbage and rubbish in the boroughs of Manhattan and the Bronx were opened July 30 by Street Cleaning Commissioner Nagle. McGill & Co., 128 East 14th St., bid $30,000 per annuam for the Bronx and $140,000 per annum for Manhattan. Jas. J. Barrett, 584 Bergen St., Brooklyn, bid $120,000 per annum for Manhattan. The Sanitary Utilization Co. bid $232,000 and $45,000, respectively, for Manhattan and the Bronx. The Sanitary Utilization Co. did not bid again, it being understood that it would stand by its five-year bid and take it to the courts.

UNION HILL, N. J.—John Beller has been awarded the contract at $2,150 for removing the garbage.

BRADDOCK, PA.—The council has decided to build a garbage crematory to cost $25,000. John Bennett, Asst. Borough Clk.

HOMESTEAD, PA.—Plans for a garbage disposal plant are being prepared. Scott & Co. and Casper Schick are interested.

SALT LAKE CITY, UTAH.—Bids are asked until Aug. 30 for constructing a garbage crematory of 30 tons capacity. J. E. Dooly, Chn. Com.

STREETS AND ROADS.

LITTLETON, MASS.—Bids are asked until Aug. 19 by the selectmen for repairing, graveling, etc., about 2,400 ft. of road.

WORCESTER, MASS.—According to press reports, Main St. will be paved with granite blocks on cement foundation.

BRISTOL, CONN.—It was voted on July 31 to appropriate $9,000 for constructing roads.

FAIRFIELD, CONN.—The sum of $4,500 has been appropriated and work on Black Rock turnpike will be resumed.

GREENWICH, CONN.—The town has voted to expend $9,000 on highway improvements.

WETHERSFIELD, CONN.—It was voted on Aug. 5 to issue $3,000 for repairing certain highways.

WESTBROOK, CONN.—It was voted on Aug. 2 to appropriate $8,000 for road work for the coming two years.

ALBANY, N. Y.—State Engineer and Surveyor Bond has awarded the following contracts for constructing state roads: Thos. H. Karr, Troy, section 2, Troy and Brunswick Road, 3 miles, at $25,800; Hoag's Corners, 3 miles, at $9,450. E. & J. E. Martin, Utica, Waterford, section 1, 1½ miles, at $10,700; section 2, 5 miles, at $32,900.

BALLSTON SPA, N. Y.—S. C. Medbery, Pres. Bd. of Trustees, writes us that plans and specifications for about 3,000 sq. yds. of brick paving, to cost about $6,000, have been prepared by H. M. Geer and accepted by the trustees who have advertised for bids.

HUNTINGTON, L. I.—Bids are asked until Aug. 31 by the highway commissioners for grading and paving Main St., as stated in our advertising columns.

ONEONTA, N. J.—The Park Paving Co., Rochester, Pa., has been awarded a contract for paving with brick at about $70,000.

ROCHESTER, N. Y.—Thomas W. Finucane has been awarded a contract for paving in Morris St. with brick at $8,280, and for a sewer in Hoeltzer St. at $2,904.

ATLANTIC CITY, N. J.—Bids are asked until Aug. 26 by the city clerk for macadam and block paving, etc., as stated in our advertising columns.

CAPE MAY, N. J.—The freeholders voted on Aug. 2 to build a new road to Five Mile Beach, and a committee was appointed to have plans and specifications prepared and to secure bids.

PATERSON, N. J.—Bids are asked until Aug. 23 for grading and macadamizing four roads in Paterson, Passaic, Acquackanonk and Wayne. Edward N. Knevitt, Dir. Bd. of Freeholders.

VAILSBURGH, N. J.—Bids are asked until Aug. 26 for constructing about 12,664 sq. ft. of artificial stone walk on Norwood St., as stated in our advertising columns. Thomas Connelly, Mayor.

WEEHAWKEN, N. J.—Bids are asked until Aug. 21 for paving with asphalt in Jane St. Thomas Carroll, Town Clk.

JEANNETTE, PA.—W. A. Cain & Bro., Dayton, O., have been awarded a contract for paving with Reese-Hammond wire cut brick.

PHILADELPHIA, PA.—According to reports bids will be asked for soon for constructing the proposed Park Speedway. Jesse L. Vodgers, Ch. Engr.

PITTSBURG, PA.—Bids are asked until Aug. 23 for grading and paving in four streets. Edward M. Bigelow, Dir. Pub. Wks.

SCOTT, PA.—Bids are asked until Aug. 23 for grading and macadamizing about 4,900 ft. of the Forsythe Road. McDonald & Andrews, Town Engrs., 810 Penn Bldg., Pittsburg.

NEWPORT NEWS, VA.—An election will be held on Aug. 15 to vote on the question of issuing $100,000 in bonds for paving and sewers. W. L. Cooke, Cy. Clk.

CELINA, O.—W. B. Todd & Co., Cincinnati, were awarded the $25,000 highway improvement bonds at a premium of $1,050.

CLEVELAND, O.—Bids are asked until Aug. 31 for grading, draining and macadamizing or paving the road through Brooklyn and Parma townships. Wm. H. Evers, County Surveyor; Julius C. Dorn, County Clk.

CONNEAUT, O.—It was voted on Aug. 9 to issue $65,000 for paving. G. B. Pike, Cy. Engr.

ELYRIA, O.—Bids are asked until Aug. 19 for improving a portion of West Ave. W. H. Park, Cy. Clk.

WESTERVILLE, O.—An election will be held on Aug. 19 to vote on the question of issuing $30,000 bonds for constructing macadamized streets; $25,000 for water-works, and $20,000 for sewers.

YOUNGSTOWN, O.—Bids are asked until Aug. 31 for asphalt paving in five streets. C. E. Cross, Cy. Clk.

FORT WAYNE, IND.—Resolutions have been adopted by the board of public works for paving with brick, asphalt or asphalt block in certain streets. A. M. Schmidt, Clk.

INDIANAPOLIS, IND.—Bids are asked until Aug. 16 by the board of public works for paving with brick and constructing cement sidewalks in certain streets. Bids are wanted by the park commissioners until Aug. 16 for constructing gravel roadways in Brookside Park.—Resolutions have been adopted by the board of public works for paving with brick, wooden block, etc., in several streets.

NORTH JUDSON, IND.—It has been voted to construct 30 miles of gravel roads in this township and bids are asked until Aug. 30.

SCOTTSBURG, IND.—Bids are asked until Aug. 20 for constructing about 8 miles of gravel road in Vienna and Finley townships. C. C. James, County Audr.

SULLIVAN, IND.—Cassius Harrison was awarded the contract on Aug. 5 for constructing 7¾ miles of gravel roads in Fairbanks township at $14,000.

GROSSE POINT, MICH.—It was voted on July 27 to issue $165,000 in bonds for constructing 14 miles of macadam road.

EVANSTON, ILL.—M. Foley has been awarded a contract for paving and laying sewer and water pipe at $33,992.

MOLINE, ILL.—Bids are asked until Aug. 15 by the board of local improvements for paving with asphalt in 22d St. and the returns with brick.

KENOSHA, WIS.—Bids are asked until Sept. 3 for 18,022 sq. yds. of brick paving in Milwaukee Ave., at an estimated cost of $32,987. Gus. Jacob, Cy. Clk.; R. H. Moth, Designing Engr.

MARINETTE, WIS.—Bids are asked until Aug. 20 for macadamizing in Ludington and Wells Sts. W. H. George, Chn. Bd. Pub. Wks.

SHEBOYGAN, WIS.—Bids are asked until Aug. 19 for constructing about 12,567 sq. yds. of macadam pavement, brick crosswalks, curb and gutter, etc. C. F. Haley, Cy. Engr.

CEDAR RAPIDS, IA.—Bids are asked until Aug. 23 for paving with asphalt in 10th St. R. A. Wallace, Chn. Pub. Impts. Com.

DES MOINES, IA.—Bids are asked until Aug. 28 by the board of public works for about 4,270 sq. yds. of brick paving in Brattleboro Ave.

HOUSTON, TEX.—Bids are asked until Aug. 19 for paving in several streets. Arthur Lipper, Cy. Secy.; J. Austin Miller, Cy. Engr.

MOSCOW, IDAHO.—Bids are asked until Aug. 15 for macadamizing several streets. H. H. Robinson, Cy. Clk.

SALT LAKE CITY, UTAH.—The Alcatraz Asphalt & Paving Co., San Francisco, was awarded a contract on Aug. 6 for paving with asphalt in certain streets at $140,280.

HENSALL, ONT.—Bids are asked until Aug. 26 for constructing about 20,000 sq. ft. of concrete sidewalks. G. T. Arnold, Reeve.

TORONTO, ONT.—This city intends to spend about $113,000 on asphalt and macadam pavements, concrete sidewalks and pipe sewers. W. A. Littlejohn, Cy. Clk.

CONTRACT PRICES.

MACADAM PAVING.—Birmingham, Ala.—We are informed that the following bids were received Aug. 7 for grading, macadam paving, etc., in several streets. Julian Kendrick, Cy. Engr.:

Grading, Macadamizing and Curbing Portions of 15th, 16th and 17th Sts., and Aves. H, I, J and M.

Quantities.	B. O. Watkins.	J. E. Donelson.	Dunn & Lallande Bros.	C. M. Burkhalter & Co.
Excavation..25,000 cu. yds.	$0.325	$0.35	$0.35	$0.70
Other.† .. 100 " "	2.00	2.00	2.00	2.00
Slag ..... 7,000 " "	.80	.80	.78	.85
Chert ..... 7,000 " "	1.20	1.15	1.18	1.20
Solid rock.. 100 " "	1.40	1.50	1.50	1.50
Granite curb:				
6" strght23,000 lin. ft..	.50	.50	.50	.52
Corners 1,000 " "	.60	.65	.60	.62
Drain pipe:				
12-in. ... 100 " "	.50	.45	.55	.50
15-in. ... 100 " "	.70	.65	.65	.75
18-in. ... 100 " "	.85	.88	.75	.90
24-in. ... 100 " "	1.35	1.30	1.32	1.40
Total	$34,905	$35,228	$35,247	$35,885

Contract awarded B. O. Watkins.

Portions of 2d, 3d, 5th and 7th Aves.

Excavation..18,000 cu. yds.	$0.30	$0.28	$0.275	$0.28
Other.† .. 100 " "	2.00	2.00	2.25	2.50
Slag ..... 6,000 " "	.60	.69	.65	1.15
Chert ..... 6,000 " "	1.15	1.10	1.12	.70
Solid rock . 100 " "	1.30	1.50	1.48	1.50
Granite curb:				
6" strght..17,000 lin. ft..	.50	.50	.50	.50
Corners. 1,000 " "	.60	.60	.62	.65
Drain pipe:				
12-in. .... 100 " "	.52	.50	.50	.55
15-in. .... 100 " "	.70	.60	.66	.70
18-in. .... 100 " "	.85	.85	.81	.90
24-in. .... 100 " "	1.35	1.25	1.26	1.30
Total	$25,672	$25,550	$25,386	$26,053

Contract awarded Dunn & Lallande Bros.

Portions of 13th and 14th Sts.

Excavation 25,000 cu. yds.	$0.26	$0.25	$0.27	$0.25
Other.† .. 100 " "	2.00	2.00	1.25	1.00
Slag ..... 8,000 " "	.75	.69	.68	.70
Chert ..... 8,000 " "	1.15	1.15	1.12	1.10
Solid rock.. 100 " "	1.48	1.50	1.30	1.50
Granite curb:				
6" strght.. 6,000 lin. ft..	.50	.49	.50	.48
Corners. 500 " "	.60	.60	.62	.60
Drain pipe:				
12-in. .... 100 " "	.50	.50	.45	.40
15-in. .... 100 " "	.65	.60	.62	.55
18-in. .... 100 " "	.85	.80	.70	.75
24-in. .... 100 " "	1.35	1.20	1.10	1.20
Total	$25,683	$24,870	$25,002	$24,370

Lowest bid, C. M. Burkhalter & Co.

†Calls for excavating under water pipes.

Ave. F.—Contract let to Burkhalter & Co. as follows: Excavation, 8,000 yds., 30 cts.; slag, 4,000 yds., 70 cts.; chert, 4,000 yds., $1.10; excavating under water pipe, 100 yds., $2; 12-in. drain pipe, 50 cts.; 15-in., 65 cts.; 18-in., 80 cts.; 24-in., $1.25; solid rock, 100 yds., $1.25; total, $10,245. 2d and 3d Aves., etc., contract let to J. E. Donelson as follows: Excavating, 4,000 yds., 30 cts.; slag, 1,300 yds., 60 cts.; chert, 1,300 yds., $1.05; 6-in. granite curbing, straight, 10,000 lin. ft., 50 cts.; corners, 58 cts.; excavation under water pipe, 100 yds., $1.80; solid rock, 100 yds., $1.30; 12-in. drain, 50 cts.; 15-in., 60 cts.; 18-in., 85 cts.; 24-in., $1.30; total, $9,328. Sidewalks, contract let to Byron Sanders, as follows: 7,000 sq. yds. cement sidewalk, 96½ cts.; vitrified brick paving, 400 yds., $1.20; H. E. Manville, brick and cement paving, $1.04; Birmingham Paving Co., cement, $1.12½; brick, $1.35; J. E. Donelson, cement, $1.15; brick, $1.50.

SIDEWALKS.—Washington, D. C.—We are informed that the District Commissioners received the following bids Aug. 10, 1901, for constructing sidewalks:

Bidder.	Laying sidewalks— City, 43,000 sq. yds.	County, 7,000 sq. yds.
Cranford Paving Co., Washington.....	$0.89	$1.07
Brennan Constructing Co., Washington	.92	1.11
E. G. Gummel, Washington	.94	1.08
F. M. Kemp & Sons, Middletown, O...	.98	1.08
Colburn Paving Co., Washington....	.97	1.21
R. A. Malone & Co., Washington....	1.15	1.20
Franklin Const'g Co., Philadelphia...	1.18	1.28

PAVING.—Detroit, Mich.—The commissioner of public works has let the following contracts for paving: New Paving—Taylor Ave. with asphalt: American Contracting Co., $2.18 per yd.; Leicester Court with cedar block: A. C. Lloyd, $1.69 a yd.; Stanton Ave. with cedar block: G. W. Winterhalter, $1.25. Repaving: John R. St. with asphalt: American Contracting Co., $1.82; Alfred St.,

Trinidad-eBrmudez Asphalt Paving Co., $2.42; Myrtle St., Humboldt to Boulevard, with cedar: J. A. Mercier, $1.27; Dubois St. with cedar: J. A. Mercier, $1.32; Waterloo with cedar: J. Porath, $1.27; Fifth with cedar: J. McLaughlin, $1.36.

RESERVOIR.—Newark, N. J.—The following bids were received Aug. 8 for constructing the Cedar Grove Reservoir; Morris R. Sherrerd, Engr. and Supt. Dept. of Water:

Bids Received at Newark, N. J., Aug. 8, 1901, for Work on Cedar Grove Reservoir.

Quantities.		National Contracting Co., 11 B'way, New York.	Bernard J. Sullivan, 10 W. Park St., Newark.	Stewart & Abbott, Times Bldg., New York.	T. A. Gillespie Co., 71 B'way, New York.
Clearing and grubbing	61 acres..	$75.00	$50.00	$76.20	$200.00
Earth excavation, 0 to 15 ft.	145,000 cu. yds.	.35	.50	.42	.40
" " 15 " 30 "	11,700 " "	.70	.90	.63½	1.00
" " below 30 "	3,100 " "	1.00	1.00	1.00	1.90
Rock excavation, under dams	4,200 " "	3.00	2.00	4.45	3.15
" " below 10 ft.	3,800 " "	4.00	2.00	2.85	2.10
" " elsewhere	5,400 " "	2.00	1.50	.90	1.40
Borrowed earth	400,000 " "	.45	.35	.241	.30
Clay puddle	10,700 " "	1.50	1.00	.95	.85
Sodding	5,000 sq. yds.	.60	.25	.28	.15
Seeding	28 acres..	20.00	25.00	12.70	42.00
Sheet piling	20 M. ft...	50 00	50.00	50.00	65.00
Rosendale concrete 5:2:1	38,100 cu. yds.	4.90	4.75	4.00	4.75
Portland concrete, 5:2:1	7,100 " "	7.00	6.00	6.20	8.25
Expanded metal	165,000 sq. ft...	.05	.05	.05	.04½
Granite rubble masonry.	2,700 cu. yds.	8.75	40.00	19.00	10.00
Rubble masonry, local stone	350 " "	5.00	4.00	4.45	4.20
Granite facing masonry	145 " "	22.00	44.00	34.30	37.00
Granite dimension masonry	130 " "	50.00	53.00	42.00	55.00
Hammered dressing stone	750 sq. ft...	.80	1.00	.65	.55
Granite paving	60 sq. yds.	3.00	2.50	2.54	2.65
Paving brick masonry	100 cu. yds.	30.00	14.00	11.43	12.00
Granolithic flooring	94 sq. yds.	1.80	1.20	1.60	1.50
Dry wall	100 cu. yds.	4.00	2.25	2.54	3.50
Slope paving	5,600 sq. yds.	3.00	1.50	1.58	1.10
Rip-rap	10,300 cu. yds.	2.00	.75	1.58	.70
Laying 60-in. cast-iron pipe	3,400 lin. ft..	2.75	4.00	2.20	2.80
" 48-in. " "	600 " "	2.00	2.00	1.55	2.10
" 30-in. " "	50 " "	1.25	1.00	1.25	1.40
" 16-in. " "	150 " "	.65	.40	.95	.70
" 12-in. " "	180 " "	.50	.35	.75	.35
" 8-in. " "	50 " "	.35	.30	.50	.35
" 6-in. " "	100 " "	.25	.25	.40	.35
Furnishing and setting 48-in. valve	2 each...	1,050 00	1,000.00	1,070.00	950.00
" " " 48-in. "	1 hy.cyl..	1,400.00	1,300.00	1,350.00	1,200.00
" " " 42-in. "	1.....	815.00	800.00	840.00	700.00
" " " 30-in. "	2 each...	320.00	325.00	345.00	300.00
" " " 16-in. "	4 " ...	95.00	100.00	105.00	100.00
" " " 12-in. "	3 " ...	38.00	45.00	43.00	50.00
" " " 8-in. "	4 " ...	60.00	65.00	65.00	60.00
Iron castings	96,000 lbs.....	.08	.04	.04¾	.05
Structural steel	12,000 "	.04	.04	.06¼	.05
Wrought iron	1,000 "	.08	.10	.06¼	.05
Furnishing and laying 6-in. tile pipe	600 lin. ft..	.60	.50	.19	.50
" " " 12-in. "	100 " "	.80	1.00	.64	.60
" " " 24-in. "	100 " "	2.00	1.50	1.60	2.50
" " " 30-in. "	100 " "	3.00	2.00	3.15	3.50
Telford pavement	10,850 sq. yds.	1.10	.85	.63	.90
Walks of screenings	12,000 " "	.25	.35	.10	.20
Cobble paving	4,100 " "	.75	.50	.63	.70
Fence	12,000 lin. ft..	.65	.75	.65	1.00
Bluestone curbing	12,000 " "	.70	.50	.57	.60
Sluice gates	.....	16,000.00	16,000.00	18,500.00	15,500.00
Bridge	.....	600.00	642.00	660.00	625.00
Total	.....	$703,801.42	$713,030.78	$581,217.24	$625,504.60

SEWERS.—Plattsburg, N. Y.—Chas. E. Johnson, Secy. and Treas., writes us that the following bids were received Aug. 1 for constructing sewers: (1) M. J. Fitzpatrick, (2) McQuillan & Pennington, (3) H. H. Rodgers, (4) W. H. Brewster, all local bidders:

		1.	2.	3.	4.
38-in. brick	2,010 lin. ft..	$3.15	$4.00	$2.40	$3.10
8-in. c.-l.	1,000 " "	3.21	2.50	4.50	1.30
30-in. brick	1,340 " "	2.56	3.25	2.20	2 62
27-in. "	1,230 " "	2.53	3.00	2.10	2 47
24-in. vif. pipe	612 " "	2.04	2.50	2.00	1.77
15-in. "	4,790 " "	1.32	1.20	1.35	1.05
12-in. "	1,900 " "	.82	1.00	1.15	.95
10-in. "	2,690 " "	.61	.90	.75	.68
8-in. "	20 " "	.35	.65	.65	.45
6-in. "	400 " "	.31	.50	.50	.45
24-in. Y's	15 each...	6.01	6.00	7.00	5.25
15-in. "	233 " ...	2.31	2.20	4.10	3.10
12-in. "	24 " ...	1.61	1.75	3.35	2.00
10-in. "	143 " ...	1.15	1.50	2.50	1.30
Storm water overflow	.....	100.00	200.00	150.00	100.00
Manholes	27 each...	54.00	50.00	50.00	47.00
Lampholes	6 " ...	14.50	10.00	15.00	9.00
Recvg basins.	24 " ...	60.00	65.00	70.00	27.00
Total	.....	$34,426	$31,729	$30,901	$27,122

ASPHALT PAVING.—Salt Lake City, Utah.—L. C. Kelsey, Cy. Engr., writes us that the following bids were received Aug. 2, 1901, for asphalt paving in Second South St., 3d South St., and for certain repairing; the contract was let to the Alcatraz Asphalt paving Co., of San Francisco, for Alcatraz XX. asphalt, they also put in a bid for Trinidad or Bermudez and these bids were the same as given in table except $2.70 a sq. yd. for asphalt pavement, $1.65 for repairing pavement, $1.70 for resurfacing pavement and the total, $152,580:

Quantities.	Alcatraz Asphalt Paving Co.	N. P. Glann Const'n Co.	City St. Improvement Co.
Grading 13,000 cu. yds.	$0.45	$0.50	$0.40
Curbing 10,500 lin. ft..	1.00	1.25	1.25
Resetting curb 100 " "	.30	.40	.25
Pavement:			
Stone block* 11,500 sq. yds.	2.70	3.29	3.10
Asphalt.† 32,000 " "	2.40	3.00	2.50
Repairing.. 3,000 " "	1.35	2.50	2.25
Resurfac'g. 6,000 " "	1.40	2.70	2.20
Cross walk 2,000 sq. ft...	.45	1.00	.60
Conc'te gutter 1,000 lin. ft..	2.10	3.00	2.07
Masonry 100 cu. yds.	6.00	9.00	7.50
Total	$140,280	$183,100	$157,970

*6-in. foundation of pea gravel; †6-in. foundation of concrete; 2½-in. wearing surface. N. P. Glann Construction Co. bid on Trinidad asphalt, and the City Street Improvement Co. on Santa Cruz Asphaltic Sandstone.

BRICK PAVING.—Oneonta, N.Y.—The Park Paving Co., of Rochester, Pa., has been awarded the contract, at $1.82, for paving certain streets with Park 4-in. best brick; total, $69,720.

CEMENT WALK, ETC.—Ontario, Cal.—C. L. McCombs and H. R. O'Bryan have been awarded the contract, at 8.94 cts. a sq. ft. for cement.

METERS, VALVES, ETC.—Buffalo, N. Y.—The following bids were received by the Bureau of Water July 25, 1901, for furnishing water meters, valves, hydrants, etc.: Meters—L. P. Beyer & Co., ½-in., ⅝-in., $7; ¾-in., $7.25; 1-in., $14; 1½-in., $24.75; 2-in., $35; Union Water Meter Co., 3-in., $80; 4-in., $160; 6-in., $350; hydrants—Howard Iron Works, 4-ft. $34; 5-ft., $35; 6-ft., $36; Cayuta Wheel & Foundry Co., Sayre, Pa., 1½-ft., $34; 3-ft., $34; 4-ft., $35; 5-ft., $36; 6-ft., $40; Pipe—U. S. Cast-Iron Pipe & Foundry Co., $22.50 a ton; castings, 3 to 24-in., $50 a ton; 30 to 48-in., $60.

MACADAM ROADS.—Independence, Kan.—Contracts for five miles of macadam roads have been let to Colyer Bros., of Independence, at $1.03½ and $1.05 a cu. yd. for grading.

SEWER.—Sheboygan, Wis.—We are informed that the following bids were received Aug. 6, 1901, for constructing brick and pipe sewers; contract awarded Jas. Healy, Morgan Park, Ill.; (1) 48-in. cast-iron pipe sewer, 492 lin. ft.; (2) 48-in. brick sewer, 1,700 ft.; (3) 15-in. pipe sewer, 800 ft.; (4) 10-in. pipe sewer, 840 ft.; (5) manholes, 17, each; C. W. Boley, Cy. Engr.:

	1.	2.	3.	4.	5.	Total.
J. H. Roche, Chicago.	$12.00	$3.43	$1.00	$0.80	$27.00	$13,666
C. Ackermann*	11.00	3.75	1.05	.80	24.00	13,707
R. Nommenson.*	11.00	4.00	.90	.75	22.00	13,936
Harding & Nelson†	11.50	4.50	.85	.70	35.00	15,171
J. Cape & Sons†	12.00	4.00	1.00	.80	30.00	14,686
Reinhart Const'n Co†	11.50	4.20	.85	.70	28.00	14,542
Jas. Healy,	12.00	3.25	1.25	.65	30.00	13,485

*Sheboygan. †Racine, Wis.

SEWERS.—Birmingham, Ala.—We are informed that the following bids were received Aug. 7, 1901, for constructing storm sewers; Julian Kendrick, Cy. Engr.:

Storm Sewers in 23d St., Magnolia Ave., Highland Ave., Ash St., Etc.

Quantities.		Dunn & Lallande Bros.	J. E. Donelson.	C. M. Burkhalter & Co.
12-in. pipe sewer	200 lin. ft..	$0.50	$0.60	$0.55
15-in. " "	2,000 " "	.65	.65	.71
18-in. " "	1,500 " "	.85	.85	.91
36-in. 1-ring brk.	1,500 " "	1.60	1.65	1.65
39-in. 2-ring "	500 " "	2.75	2.70	2.75
48-in. " "	700 " "	3.00	3.10	3.25
54-in. " "	1,000 " "	3.50	3.50	3.75
57-in. " "	800 " "	4.00	4.10	4.25
66-in. " "	600 " "	4.50	4.50	4.75
"A" catchbasins.	30 each...	30.00	32.00	35.00
"B" inlets	40 " ...	14.00	25.00	25.00
Manholes, complt	15 " ...	27.50	30.00	27.50
Rock excavation..	1,000 cu. yds.	1.48	1.40	1.75
Earth excavation.	10,000 cu. yds.	.40	.50	.50
Brick laid	10,000 a M....	15.00	15.00	18.00
Lining sewer	500 lin. ft..	2.00	2.50	2.50
Total		$26,453	$28,380	$29,663

BRICK PAVING.—Connellsville, Pa.—John Duggan has been awarded the contract at $1.25 a sq. yd. for brick paving, 45 cts. for excavating, 60 cts. for curbing. Bowman Bros., of McKeesport, Pa., bid $1.45 for paving and 45 cts. for excavating.

BRICK PAVING.—Oklahoma City, Okla. Ter.—F. L. Kramer has been awarded the contract at $1.85 per sq. yd. for Pittsburg, Kan., brick paving; guaranteed for 10 years.

SIDEWALKS.—Davenport, Ia.—J. P. Groves & Co. submitted the following bids Aug. 6, 1901, for temporary sidewalks: 4-ft. walks, 27 cts., repairing, 21 cts.; 6-ft., 28 and 22 cts., respectively; 8-ft., 29 and 23 cts., respectively; 10-ft., 30 and 25 cts. respectively.

DREDGING.—New York, N. Y.—The Bureau of Yards and Docks, Navy Dept., Washington, D. C., received the following bids Aug. 3, 1901, for dredging, etc.: Removing crib work, etc., 20,000 cu. yds.: Morris & Cummings Dredging Co., 17 State St., 67½ cts. a cu. yd.; R. G. Packard Co., 130 Pearl St., 21.4 cts. (accepted); W. H. Beard Dredging Co., 13 William St., 40 cts.; all measured in scows. Dredging and removing mud, sand, silt, etc., 100,000 cu. yds: R. G. Packard Co., 23.7 cts. a cu. yd.; W. H. Beard Dredging Co., 21 cts.; Henry DuBois Sons Co. (accepted), 16 cts.; Morris & Cummings, 26½ cts.; all measured in scows.

MANUFACTURING PLANTS.

NEWARK, N. J.—The Balbach Smelting & Refining Co. is about to establish a new plant on the Passaic River.

PHILADELPHIA, PA.—The Alan Wood Co. has secured two tracts of land at Ivy Rock and intends to erect an extensive steel plant.——Hales & Ballinger, Archs., are preparing plans for a 2-story rug manufacturing plant, to cost about $25,000, which is contemplated by D. H. Stroud.

PITTSBURG, PA.—The Armstrong Cork Co. has received permission to erect a factory at 24th and Railroad Sts., to cost $250,000.

WILMINGTON, DEL.—Reports state that the Pennsylvania R. R. has purchased 59 acres of land, and that passenger car shops will be built on it.

BALTIMORE, MD.—Reports state that the Maryland Steel Co. intends making improvements to their plant at Sparrow's Point, to cost about $4,000,000.

RICHMOND, VA.—Reports state that bids are wanted by the American Locomotive Co. for constructing a $100,000 plant.

BIRMINGHAM, ALA.—The Central Foundry Co. will consolidate its Gadsden and Bessemer plants at the last named place. The citizens of Gadsden failed to secure the plant and have organized a company, capitalized at $150,000, to erect and operate a soil pipe manufactory in that place, to employ about 200 men.

PALESTINE, TEX.—Bids are asked at once for constructing a 500 barrel, also a 1,000-barrel-a-day capacity salt-making plant, with plans and specifications. Palestine Coal & Mining Co., may be addressed.

POMEROY, WASH.—H. M. Thatcher, of Pomeroy, writes us that he is interested in the proposed establishment of a good sized flour mill, sawmill, electric plant, water-works and probably a sugar beet plant. Mr. Thatcher wants the names and addresses at once of firms that handle or make machinery for manufacturing jute bags.

BROMPTON FALLS, QUE.—Bids are asked until Aug. 20 for about 30,000 cu. yds. of ledge excavation, constructing forebay walls, wheel pits and tail race, estimated to contain 10,000 cu. yds. of masonry and concrete, for building a two-story pulp mill, 142 × 84, and a two-story wood-preparing building, 67 × 65, both of brick and steel. Brompton Pulp & Paper Co., George B. Bearce, Pres.

MISCELLANEOUS CONTRACTS.

WHARF.—Iona, N. S., Can.—Bids are asked until Aug. 30 for a wharf. Fred. Gelinas, Secy. Dept. Pub. Wks., Ottawa, Ont.

SEA WALL.—Fort Monroe, Va.—Bids are asked by the U. S. Engineer, Norfolk, Va., until Sept. 6 for constructing a sea wall.

PARK, ETC.—Nashville, Tenn.—The Chamber of Commerce is urging the city to buy 400 acres for a park and to build a driveway.

DREDGING.—Detroit, Mich.—Bids are asked until Aug. 31 for dredging, etc., as stated in our advertising columns. Col. G. J. Lydecker, U. S. Engrs.

WHARF, ETC.—New Orleans, La.—Bids are asked until Aug. 27 for constructing a wharf to be 800 ft. long. Cole & Maloche, Engrs.: H. McCloskey, Pres. Dock Bd.

FITTINGS, HARDWARE, ETC.—New York, N. Y.—Bids are asked until Aug. 27 for steam fittings, hardware, steam pump, etc. F. J. Lantry, Comr. Dept. of Correction, 148 East 20th St.

LIGHT-HOUSES.—Mobile, Ala.—Bids are asked until Sept. 9 for constructing a lighted beacon in Key West Harbor and removing two lighted beacons in Choctawhatchee Bay, Fla., and re-erecting them at Bahia Honda Harbor and Long Key Shoal, as stated in our advertising columns. Col. A. N. Damrell, U. S. Engrs.

GRADING, ETC.—Boston, Mass.—The following bids were received by Governor Crane Aug. 7 for grading and laying out the State House grounds between Bowdoin and Mt. Vernon Sts.: John H. McCusker & Co., of Waltham, $78,909; John Cavanagh & Co., $81,117; H. A. Hanscom & Co., $89,417; P. McGovern, $91,110; D. F. O'Connell, $94,739; John T. Falvey, $105,328.

U. S. POSSESSIONS AND CUBA

BRIDGE.—San Juan, P. R.—It is proposed to build a bridge across the Corozal River. Address Carmelo Taboas, of Corogal, P. R.

SUGAR REFINERY.—Hawaii.—Edward Pollitz, of San Francisco, Cal., is reported as making arrangements for the construction of a new sugar refinery in Hawaii.

LIBRARY BUILDING.—San Juan, P. R.—Reports state Andrew Carnegie may give $150,000 for a public library for San Juan. M. G. Brumbaugh, Comr. of Education.

ELECTRIC PLANT.—Hawaii.—Grimwood, Richardson & Co., of Honolulu, H. I., are reported to have been awarded the contract for an electric plant in Mauri for the Hawaiian Commercial & Sugar Co.

HARBOR IMPROVEMENTS.—Manila, P. I.—The Atlantic, Gulf & Pacific Co., of San Francisco, Cal., and New York, N. Y., has been awarded the contract at $1,950,000 for improvements to Manila Harbor.

RAILWAY SUPPLIES.—Cuba.—R. G. Ward, Manager of Construction, for the Cuba Company, at Ciego de Arila, desires catalogues of all kinds of railway material and supplies for railway construction and operation. Full postage should be paid or the publications will not reach him. The Cuba Company (of which Sir William Van Horne is President), 80 Broadway, New York, is building a trunk line lengthwise of the island.

BOILER, ETC.—San Juan, P. R.—We are informed that the following bids were received by Rear-Admiral M. T. Endicott, Ch. Bureau of Yards and Docks, Navy Dept., Washington, for furnishing and erecting a 100-HP. boiler, chimney, etc., at the San Juan naval station: B locomotive type boiler, chimney, pump, fittings, etc., delivered f. o. b. New York, ready to be erected by the government; C, self-contained water-tube boiler in asbestos lined case, etc., erected; D, same delivered f. o. b. New York: Fitzgibbons Boiler Co., Oswego, N. Y. (accepted), B, $1,965; Oil City Boiler Works, Oil City, Pa., B, $2,250; N. J. Foundry & Machine Co., Red Bank, N. J., C $4,935, and D $2,925. It is stated that the first important work to be done on the new naval station at San Juan is the erection of two coaling towers and the machinery for the handling of fuel. The appropriation available for coaling facilities is $69,750. The towers are to be of the Boston type so far as this type is understood to define a tower in which one engine or drum is used for hoisting and another drum is used to give horizontal motion to the hoisting rope or chain from a position over the ship's hatch to a position over the cars or hopper. The towers are to be fixed, to be built upon a wharf to be furnished by the government, and each tower may occupy a portion of wharf 22 ft. square, with its outer face 4 ft. back from the edge of the wharf. Each tower is to be provided with track scales of a capacity for 6 tons, and a tare beam to weigh 3,000 lbs. Each tower is to be provided with one removable steel-lined hopper at least 7 ft. deep.

FOREIGN CONTRACTS AND EXPORT NEWS

REFUSE DESTRUCTORS.—Mansfield, Eng.—Bids are asked until Sept. 5 for furnishing refuse destructors. J. H. White, Clk.

SUGAR MILL.—Tahiti, South Sea Islands.—Reports state that Frank G. Geiger, of Tahiti, is in the United States to buy machinery for a sugar mill.

TRAMWAY.—Ilford, Eng.—Bids are asked until Aug. 31 for constructing 11 miles of tramways. W. C. C. Hawtayne, Engr., 9 Queen St. Pl., London, W. C.

STORE.—Sydney, N. S. W.—It is stated that the department stores of Anthony Hordern & Sons, of Sydney, have been destroyed by fire, causing a loss of about $3,000,000.

COAL HANDLING PLANT.—Middlesboro, Eng.—Bids are asked until Sept. 5 for a mechanical coal-handling plant at the electric works. Robt. Mammond, Engr., 64 Victoria St., Westminster, London.

ELECTRIC RAILWAY.—Guatemala, Central America.—Romiro Fernandez, of the Urban Ry. Co., Guatemala City, has been granted a concession for an electric tramway, material to be entered free of duty.

FISH BOLTS, PLATES, ETC.—Norway.—Bids are asked at once by L. S. Zachariasen, Engr., Place Chambers, 9 Bridge St., Westminster, London, Eng., for furnishing the Norwegian Government with 370 tons of fish bolts and fang bolts, about 600 tons rolled steel base plates for rails, and 42 sets points and crosings.

ROLLING STOCK.—Belgium.—According to the "Revue Industrielle," the management of the Belgian government railroads contemplates a considerable increase of rolling stock in the near future. In addition to 570 cars already advertised for in the official gazette, the furnishing of several hundred passenger cars and 100 locomotives will be awarded under the bid system.

RAILWAY SUPPLIES, WIRE, ETC.—Adelaide, South Australia.—Bids are asked by the Supply and Tender Board Office, Adelaide, until Sept. 25 for Westinghouse automatic brake details, boiler plates, wagon tires, springs, etc., and until Oct. 2 for 200 miles of galvanized wire netting, etc. Specifications may be seen at the office of the Agent-General for South Australia in London.

ELECTRICAL EQUIPMENT.—England.—The British Westinghouse Electric & Mfg. Co., of Manchester, Eng., and Pittsburg, Pa., is reported to have been awarded the contract for the electrical equipment for the Mersey Ry., which runs under the Mersey River between Liverpool and Birkenhead, about 1½ miles. The Westinghouse Co. has also the contract for the necessary transformers and meters for the electric system for Dublin, Ireland.

BRIDGE.—St. Petersburg, Russia.—The city council will soon ask for bids for a bridge over the Neva River, near the Winter Palace, to replace the pontoon bridge so long in use at that point. Its length is 847 ft., and width 91 ft.; the cost is limited to 3,500,000 rubles ($1,802,500). The specifications will be ready Sept. 1, and the bridge must be completed in one year from that date. There are now two permanent bridges over the Neva—one stone and one iron—about completed.

ELECTRIC RAILWAY.—Progreso, Yucatan, Mex.—The Compania del Ferrocaril Muelle y Almancenes de Comercio de Progreso (The Progreso R. R., Wharf & Warehouse Co.), which operates the sisal storage business in the chief ports of Yucatan, is having specifications prepared with a view to the construction of an electric traction system in Progreso. The tramway now in use is about eight miles in length, and is operated by horse power. This will be converted into an electric road and an additional length of five miles of track added. Electrical power will also be utilized for the purpose of operating the machinery, etc., of the extensive docks now in the course of construction. It is also intended to light Progreso, which has a population of between 8,000 and 10,000, by electricity. It is stated that engineers are preparing for the government the permanent survey for the first 50 kilometers of a railroad between Chihuahua and the City of Mexico. A series of wells and windmills will be established along the route. Telephone lines will be established also. The permanent survey of the line between Mexico and Presidio del Norte has practically been decided upon and will be prepared as soon as maps and profiles for the government covering the first 50 kilometers are completed.

INDUSTRIAL NOTES.

THE WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, has moved its Seattle, Wash., office to 314 Occidental Ave.

THE EASTON FOUNDRY & MACHINE CO., Easton, Pa., has moved its New York office from 156 5th Ave. to 36 East 22d St.

THE STANDARD ROLLER BEARING CO., Philadelphia, has purchased the axle business for wagons, carriages and automobiles of the Ball Bearing Co., Boston.

THE CARSON TRENCH MACHINE CO., Boston, has moved its New York office from 123 Liberty St. to 10 Barclay St. John J. Trainor is the New York representative.

THE GARDNER ELECTRIC DRILL & MACHINERY CO., has removed its general office and factory to Cleveland. Its Western office remains at 1725 Blake St., Denver.

THE PRESSED STEEL CAR CO., Pittsburg, has just shipped another lot of 10 flat cars of 50,000 lbs. capacity for the Zululand Ry. This is the third shipment to South Africa within six months.

THE AMERICAN TUBE WORKS, Somerville, Mass., is having a new boiler house built from plans designed by Arthur F. Gray, of Boston. A Green economizer is included in the equipment.

THE SMEDLEY STEAM PUMP CO., Dubuque, Ia., informs us that it has the contract for two compound duplex pumping engines of 575,000 gallons capacity each, for the water-works of Bellevue, Ia.

THE O'MEARA CO., 41 Center St., New York, has been incorporated with a capital of $40,000 by J. O'Meara, Walter L. Clark and Walter W. Clark, 609 E. 136th St., New York, to manufacture valves, disks, packings, etc.

THE B. F. STURTEVANT CO., Boston, announces that over 8,000 Sturtevant engines and nearly 200,000 of its blowers are now in use. It has the contract for the mechanical heating and ventilating system at the new plant of the Wellman & Seaver Engineering Co., Cleveland.

THE AMERICAN CAR AND FOUNDRY CO. has just shipped from its Jackson & Sharp branch, Wilmington, Del., two private cars for King Alphonso of Spain. Each is 30 ft. long, of royal blue color, gold trimmings, with royal coat-of-arms on sides, etc. One is a drawing room coach and the other a dining car.

A. SAMUEL BERQUIST, 108 Wilson St., Brooklyn, N. Y., has been awarded the contract for one 1,800-ton bunker for the United Coke & Gas Co., and for one 1,500-ton bunker for the Union Traction Co., in Philadelphia. A suspension bunker for the storing of lime has recently been completed for the Chas. Warner Co., Wilmington, Del.

THE ODORLESS EXCAVATING CO., 64 Federal St., Boston, shipped last month an odorless excavating outfit to Santiago and one to Guatanamo, Cuba, and has two outfits on the Munson Line S. S., which sailed from New York Aug. 10th for Cardenas, Cuba. The first two are U. S. Government orders, the latter is from Dr. Jose M. Verdeja for the city of Cardenas.

THE CARLIN MACHINERY & SUPPLY CO., Allegheny, Pa., has shipped to Davis & Harris, Beaver, Pa., a 125-HP. water-tube portable boiler, to be used in the Beaver Valley quarries. This is said to be the largest portable boiler used in that region for quarrying purposes. It operates hoisting, rock drills and other machinery. It has also shipped a 30-tin locomotive to Garysbury, N. C., to be used by the Garysburg Lumber Co.

THE CONSOLIDATED CAR HEATING CO., Albany, N. Y., has received the contract for the entire electric heating equipment of the Manhattan Elevated R. R., New York, and expects to have 300 cars ready by Jan. 1, 1902. The contract calls for 1,200 cars, each of which will contain 18 heaters, making the total number of heaters 21,600. These 21,600 heaters will contain 64,800 coils, which will give a length of 1,350 miles of wire and a heating surface of 58,722 sq. ft.

THE IMPERIAL WHEEL CO., Flint, Mich., has just closed contracts for additional factory equipment as follows: Refuse conveyors, Link Belt Machinery Co., Chicago; dust-arrester system for wood-working machinery, Grand Rapids Blow Pipe & Dust Arrester Co., Grand Rapids; electric-driven freight elevators, Haughton Elevator & Machinery Co., Toledo, O.; hangers and bearings, Hyatt Roller Bearing Co., New York. Field & Hinchman, Detroit, are the consulting engineers.

THE CHICAGO PNEUMATIC TOOL CO., Chicago, has just received through its foreign office the largest single order for pneumatic tools ever placed with it, consisting of 1,525 tools, as follows: 275 Boyer long-stroke hammers, 350 No. 1 Boyer chipping and calking hammers, 400 No. 2 Boyer chipping and calking hammers, 25 No. 000 Boyer extension riveters, 25 No. 000 Boyer yoke riveters, 25 1¾ × 6-in. Boyer yoke riveters, 150 No. 2 Boyer drills, 250 No. 3 Boyer drills, 25 No. 4 Chicago breast drills.

THE NATIONAL BRIDGE CO., 45 Broadway, New York, is erecting three bridges at Lakewood, N. Y., and is building the roof trusses and other steel work for the boiler house of the American Tube Works at Somerville, Mass., and a 70-ft. bridge for the Olean St. Ry. Co., at Portville, N. Y. It has just sold four bridges to the village of Cambridge and the town of White Creek, N. Y., all to have buckle-plate and concrete floors. The company has recently completed a steel bridge for the Lehigh Valley R. R. Co. across its tracks at Copley, Pa.

THE STILWELL-BIERCE & SMITH-VAILE CO., Dayton, has an order from the Wisconsin Traction, Light, Heat & Power Co., Appleton, Wis., for its water-power equipment, requiring two units of water wheels, each unit containing three pairs of 42-in. Victor turbines mounted on horizontal shafts. Two single 24-in. horizontal Victor turbines will also be used for driving the exciters. The large wheels will be used for driving the main plant, and will develop 3,200 HP. The gate work will be of the drawrod type, which is fully covered by patents.

H. A. STREETER, Globe Iron Works, Chicago, whose steel clips for structural steel connections were described and illustrated in our issue of Sept. 20, 1900, has taken out patents for several new forms of these clips. These include hangers, having the upper part bent to fit the flanges of I-beams, etc., while the lower part is bent to form a loop or seat, or is slotted to fit an angle or T-iron member lying under and at right angles to the beam. The clips are made in a great variety of shapes for connecting members in steel frame building construction.

THE EXETER MACHINE WORKS, Exeter, N. H., reports an unusually large amount of business in hand, including a contract for a 20-section boiler for heating Dunbar Hall, Phillip's Exeter Academy, Exeter, N. H.; an order from the Malden Electric Co., Malden, Mass., for one of its largest size steam fans, dimensions of housing 18 ft. 6 ins., width of wheel 8 ft., to be delivered in running condition on or before Aug. 15, the fan to be used for a water cooling tower designed by Francis H. & Charles W. Boyer, Mech. Engrs. The works recently shipped a 110-in. steam fan to the Hazleton Electric Light & Power Co. for its plant at Freeland, Pa.; also a heating and ventilating plant for the new library building at Lewisburg, Pa., and has the contract for a similar fan, using a 20-section Exeter boiler, for the Union county court house at Lewisburg. Ruhl & Co. are the Lewisburg agents. The Exeter Machine Works announces that it has just built a steam fan from a new design, doing away entirely with the additional foundation for engine. The whole is self-contained, and can be immediately bolted down and started up, making a great saving in foundation.

NEW COMPANIES.—Citizens' Telephone Co., Elmira, N. Y.; $250,000; Chas. H. Stewart, Joel H. Fuller, Chas. W. Stone, Cleveland, O.

Watervliet-Green Island Home Telegraph Co., Albany, N. Y.; $225,000; Fred. A. Sudro, Thos. W. Brush, Fred. A. Martin, Elyria, O.

National Ditch & Dredge Co., Minneapolis, Minn.; $100,000; John Sibley, L. A. Lydiard, F. O. Kerr.

Willoughby Dock Co., Youngstown, O.; $60,000; J. G. Butler, Jr., E. L. Ford, H. H. Stambaugh.

Edison Storage Battery Co., Glen Ridge, N. J.; $1,000,000; Herman E. Dick, Chicago, Ill.; Walter S. Mallory, Wm. E. Gilmore, Orange.

Loew Filter & Mfg. Co., Cranford, N. J.; $20,000; Stephen J. Cox, Cranford; Herman Meyer, Stephen S. Newton, New York, N. Y.

Oneida Construction Co., Syracuse, N. Y.; $250,000; S. Loomis Allen, Lorain, O.; G. K. Betts, R. E. Drake, Syracuse.

Daly & Hannan Dredging Co., Ogdensburg, N. Y.; $100,000; W. J. Daly, John Hannan, W. S. Daly.

Bostwick Mfg. Co., Bostwick, Ga.; $25,000; cottonseed oil mill; John Bostwick, E. B. Cowan, R. B. Green.

Bridgewater Steel Co., 185 Montgomery St., Jersey City, N. J.; $650,000; J. V. Batton, Ralph McKee, John W. Avery.

American Vacuum Can & Machine Co., 469 Broad St., Trenton, N. J.; $125,000; George Lees, Owen L. Crumb, Will W. Hovey.

Electric Typewriter Co., Buffalo, N. Y.; $100,000; Edward Michael, Jas. A. Roberts, Jos. B. Roberts.

Hackensack Meadows Co., Jersey City, N. J.; $2,000,000; Henry L. Sprague, John I. Simmons, Charles H. Johnson.

Sutton-Steele Electrical Mining & Milling Co., Dallas, Tex.; $100,000; to manufacture mining and milling tools; H. M. Sutton, I. Jalonick, E. G. Steele.

Florida Ship Canal Co., Tallahassee, Fla.; $100,000,000; F. A. Hendry, John E. King, A. S. Mann.

Orange County Road Construction Co., Goshen, N. Y.; $20,000; E. H. Harriman, Arden; C. H. Beckers, New York, Louis Bedell, Goshen.

Hoshor-Platt Co., Trenton, N. J.; $250,000; to manufacture gravity bucket conveyors; J. C. Hoshor, Thomas C. Platt, Charles Agnew.

People's Telephone Co., Detroit, Mich.; $2,500,000; C. L. Palms, Henry Stephens, J. C. Hutchins.

Federal Wireless Telephone & Telegraph Co., Pierre, S. D.; $5,000,000; Alfred B. Davis, Seymour Lee, W. A. J. Seales.

Bradshaw Telephone Co., Bradshaw, Neb.; $50,000; Daniel Graves, W. A. Wells, L. S. Loomis.

Duncan Electric Mfg. Co., Chicago, Ill.; $100,000; electrical apparatus and supplies; Chas. A. Brown, Geo. L. Cragg, Harvey L. Harrison.

Hallowell Mfg. Co., Augusta, Me.; $100,000; cocks and valves; Nathan D. Pratt, Lowell, Mass., Pres.

Vulcan Consolidated Copper Co., Esmerelda county, Nev.; $5,000,000; J. A. Bamberger, Salt Lake City, Utah, Vice-Pres.

Dithridge Steel Car Co., Trenton, N. J.; $200,000; Edw. L. Dithridge, Chas. W. Morris, Robt. L. Walterbeck, Jersey City.

Dundon's Bridge & Construction Co., San Francisco, Cal.; $70,000; P. F. Dundon, P. M. Reed, J. E. Buckley.

Algoma Steel Co., Sault Ste. Marie, Ont.; $20,000,000; F. H. Clergue, H. C. Hamilton, Sault Ste. Marie; E. V. Douglas, Philadelphia, Pa.

Tula Iron & Steel Works & Mfg. Co., Trenton, N. J.; $2,500,000; M. R. Burnham, B. F. Burnham, Ferrería de Tula, Mexico; E. L. Imhaff, Pittsburg, Pa.

Interstate Telegraph & Telephone Co., Little Rock, Ark.; $50,000; Wm. M. Freeman, Frank A. Locke, Ashdown; L. A. Byrne, Texarkana.

Philippines Development Co., San Francisco, Cal.; $400,000; dredging, etc.; W. J. Schmidt, Oakland; L. T. Monteagle, W. C. Hamberberer, San Francisco.

Field Force Pump Co., Lockport, N. Y.; $50,000; W. S. Chapman, C. A. Barnes, Laura B. Chapman.

Everson Steel Incorporation Co., West Virginia; $3,000,000; Jas T. Wakeman, Geo. F. Mercer, Geo. Everson, Pittsburg, Pa.

John Matthews Co., New York, N. Y.; $1,000,000; carbonated water; John F. Matthews, Jas. S. Ferguson, Matthew H. Wood.

Richfield Springs Telephone Co., Richfield Springs, N. Y.; $5,000; M. A. McKee, John Gyer, W. P. Borland.

Worthington Construction Co., Birmingham, Ala.; $20,000; Thos. Worthington, Walker Percy, Wm. I. Grubb.

Bundy Lamp & Gas Co., Trenton, N. J.; $500,000; gas generators; D. A. Manning, John A. MacTeak, Wm. S. Erdell, Camden, N. J.

Hygienic Water Purification Co., Trenton, N. J.; $500,000; E. H. Hansell, John A. MacTeak, Geo. H. P. Martin, Camden, N. J.

New York Estimating, Engineering & Contracting Co., New York, N. Y.; $10,000; J. H. Robertson, R. K. Haines, W. N. Woodend.

Beaumont Telephone Co., Beaumont, Tex.; $60,000; W. H. Aldridge, S. H. Van Wormer, J. K. Duffy.

Barstow Irrigation Co., Barstow, Tex.; $500,000; John A. Balstier, Geo. E. Barstow, New York, N. Y.; George E. Briggs, Barstow.

U. S. Vapor Purifying & Disinfectant Steam Valve & General Mfg. Co., Brooklyn, N. Y.; $100,000; C. J. Heitzman, J. T. Trory.

Valley Telephone Co., Waverly, N. Y.; $75,000; Fred E. Ely Ford, Waverly; Chas. B. Stowe, Joel Fuller, Cleveland, O.

Bakersfield Brick Co., Bakersfield, Cal.; $10,000; A. G. Bowman, A. J. Taylor.

Beatrice Milling Co., Whitewright, Tex.; $25,000; W. N. Stone, J. F. Lilley, C. B. Bryant.

Western Wireless Telephone & Telegraph Co., Pierre, S. Dak.; $5,000,000; F. W. Midgely, Albert F. Clark, J. E. Hipple.

Continental Wireless Telephone & Telegraph Co., Pierre, S. Dak.; $5,000,000; A. R. Collins, Samuel Kelly, J. E. Hipple.

International Dust & Cinder Deflector Co., Brooklyn, N. Y.; $175,000; Charles P. Buchanan, Alex. F. Crichton, Wm. A. Boeckel.

Ohio & Kentucky Asphalt Co., Cincinnati, O.; $50,000; Frank H. Kirshner, Cleveland; P. R. Quinlan, C. M. Warner.

Smythe Machine Co., Los Angeles, Cal.; $600,000; Frank C. Bolt, J. S. Torrance, W. S. Wright, Yuma.

Wisconsin Foundry & Mfg. Co., Racine Junction, Wis.; $10,000; Hans W. Hayden, H. L. Gude, F. W. Glahn.

West Gallatin Canal Co., Bozeman, Mont.; $28,000; Chas. E. Hay, E. J. Kidd, Edw. H. Gooch.

Potomac Lime & Stone Co., Keller, W. Va.; $100,000; Chas. E. Keller, Raymond Ford, Alfred D. Ward.

New York House Wrecking Co., New York, N. Y.; $25,000; Frank Der Pell, G. H. McKee, New York; E. W. Mente, New Orleans, La.

Hydraulic Car Brake Co., Syracuse, N. Y.; $25,000; M. E. Copeland, H. J. Hart.

Holyoke Steam Boiler Works, New Jersey Registration & Trust Co. Bldg., East Orange, N. J.; $60,000; Wm. A. T. Coghlan, Francis Kennedy, Thomas H. Sears.

United States Power Co., Jersey City, N. J.; $250,000; to manufacture engines, etc.; J. Wesley Allison, Kenneth K. McLaren, Wm. M. Maloy, 15 Exchange Pl.

Magnolia Mutual Telephone Co., Magnolia, Ill.; $2,500; Perry Dakin, E. E. Barbour, John Davidson.

Great Northern Construction Co., Harvey, Ill.; $100,000; Arthur Irwin, E. G. T. Lancaster, Otta Gresham.

Concordia Telephone & Telegraph Co., Concordia, Kan.; $20,000; William Lutt, F. W. Daugherty.

Middle States Construction Co., Fort Scott, Kan.; $100,000; John H. Crain, Edward W. Minturn, John W. McKinney.

La Grange Cotton Oil Mfg. Co., La Grange, Tex., $50,000; John Schuhmacher, C. J. Von Rosenberg, Herman Amberg.

Commonwealth Construction Co., New York, N. Y.; $100,000; C. O. Barlow, New York; E. A. Bangs, R. S. Barlow, Boston, Mass.

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